

Contents to Volume 61

Editorial

- 1 Message from the Editor-in-Chief, Frank J. Rauscher, III.

Advances in Brief

- 2 Histone Deacetylase-targeted Treatment Restores Retinoic Acid Signaling and Differentiation in Acute Myeloid Leukemia. Fabiana F. Ferrara, Francesco Fazi, Andrea Bianchini, Fabrizio Padula, Vania Gelmetti, Saverio Minucci, Marco Mancini, Pier Giuseppe Pellicci, Francesco Lo Coco, and Clara Nervi.

- 8 Evidence for the Development of *p53* Mutations after Cytotoxic Therapy in a Neuroblastoma Cell Line. Deborah A. Twaddle, Archie J. Malcolom, Nick Brown, Andrew D. J. Pearson, and John Luncz.

- 14 Usefulness of Repeated Direct Intramural Gene Transfer Using Herpesvirus-based Vector of Japan-Liposome Method for Cytidine Deaminase Stable Gene Therapy. Hiroki Kanyama, Naohiro Tomita, Tomoki Yamano, Tomohiko Aihara, Yasuo Miyoshi, Masayuki Ohue, Misuru Sekimoto, Isao Sakita, Yasuhiro Tamaki, Yasufumi Kaneda, Peter D. Senter, and Morito Monden.

- 19 More Frequent *Beta-Catenin* Exon 3 Mutations in Glabellar Adenoma Than in Carcinomas Indicate Different Lineages. Nobuyuki Yanagisawa, Tetsu Mikami, Makoto Saegusa, and Isao Okuyasu.

- 23 Alterations of the Double-Strand Break Repair Gene *MRE11* in Cancer. Toshihiko Fukuda, Tatsushi Shimoyoshi, Mamoru Takahashi, Toshiro Kataoka, Toshimasa Asahara, Hiroki Inai, Masahiro Watanabe, Masayuki Yasutomi, Naoto Kamada, and Kyoshi Miyagawa.

- 27 Lack of Telomerase RNA Gene *TERC* Expression in Alternative Lengthening of Telomeres Cells Is Associated with Methylation of the *TERC* Promoter. Stacy E. Horne, Lisa A. Bryce, G. Bea A. Wisman, Sharon Burns, James J. Going, ate G. J. van der Zee, and W. Nicolai Kruyff.

- 33 Specific *p53* Mutations Detected in Plasma and Tumors of Hepatocellular Carcinoma Patients by Electrospray Ionization Mass Spectrometry. Peta E. Jackson, Geng-Sun Qian, Martin D. Friesen, Yuan-Rong Zhu, Peixiu Lu, Jin-Bing Wang, Yiqian Wu, Thomas W. Kensler, Bert Vogelstein, and John D. Groopman.

- 36 Frame-shift Mutations at Coding Mononucleotide Repeats of the *BRAD50* Gene in Gastrointestinal Carcinomas with Microsatellite Instability. Nam-Gyun Kim, Yun Rak Choi, Myung Jin Baek, Yun Hee Kim, Haeyoung Kang, Nam Kyu Kim, and Herman D. Sint.

- 45 Tumor Progression Is Associated with a Significant Decrease in the Expression of the Endostatin Precursor Collagen XVIII in Human Hepatocellular Carcinomas. Orlando Musso, Marlín Rehr, Nathalie Théret, Bruno Turlin, Paulette Bioulac-Sage, Dominique Lotrian, Jean-Pierre Campion, Taina Philijamont, and Bruno Clement.

- 50 Highly Elevated Ultraviolet-induced Mutation Frequency in Isolated Chinese Hamster Cell Lines Defective in Nucleotide Excision Repair and Mismatch Repair Proteins. Ken-ichiro Nara, Fumio Nagashima, and Akira Yaku.

- 53 Topoisomerase I-mediated Cytotoxicity of *N*-Methyl-*N*-nitro-*N*-nitrosoguanidine: Trapping of Topoisomerase I by the (*i*²-Methyl)guanine. Philippe Pourquier, Jessica L. Wallman, Yoshimasa Urusaki, Natalia A. Likhiteva, Anthony E. Pegg, John L. Nitiss, and Yoshiro Honna.

- 59 The Partial Nonrandom Duplication of the *MLL* (ALL 1) Gene Is a Novel Rearrangement That Generates Three Distinct Fusion Transcripts in B-cell Acute Lymphoblastic Leukemia. Susan P. Whitman, Matthew P. Strout, Guido Manzoni, Aharon G. Freud, Lucia L. Culley, Nancy J. Zeleznik-Le, Karen M. Mink, Karl S. Theil, Ursula L. Kees, Clara D. Bloomfield, and Michael A. Caligari.

- 64 Human Homologue of Yeast Rad23 Protein A Interacts with p300/Cyclic AMP-response Element Binding (CREB)-binding Protein to Down-Regulate Transcriptional Activity of *p53*. Quanzheng Zhu, Gulzar Wan, Manzoor A. Wan, and Altaf A. Wan.

- 71 Intact *Nitric Oxide Synthase II* Gene Is Required for Interferon- β -mediated Suppression of Growth and Metastasis of Pancreatic Adenocarcinoma. Baitang Wang, Qinghua Xiong, Qian Shi, Xiangdong Li, James L. Abbruzzese, and Keping Xie.

- 76 Proteomic Analysis Reveals that 14-3-3 σ Is Down-Regulated in Human Breast Cancer Cells. Anne-Sophie Vercouter-Desurne, Jérôme Lemoine, Xueren Le Bourhis, Horace Louis, Hélène Bolly, Victor Narcombe, Françoise Révillion, Jean-Pierre Peyrat, and Hubert Hondermarck.

- 81 A Three-Dimensional and Temporo-Spatial Model to Study Invasiveness of Cancer Cells by Hergenrol and Prostaglandin E₂. Liana Adam, Abhijit Mazumdar, Tushar Sharma, Terence R. Jones, and Rakesh Kumar.

Regular Articles

Carcinogenesis

- 88 *p53* Modulates Base Excision Repair Activity in a Cell Cycle-specific Manner after Genotoxic Stress. Hagar Ofer, Itir Zurer, Geçer Bulman, Marjan Rehavik, Ayşet Çelik, Michael Milyavsky, Naomi Goldfinger, and Varda Rotter.

- 97 Progesterone Receptor B Gene Inactivation by Hypermethylation in Human Uterine Endometrial Cancer. Masahiro Sasaki, Abhipsa Dharia, Bong R. Oh, Yutichiro Tanaka, Seiki Fujimoto, and Rajiv Dahiyati.

- 103 Protection against 2-Hydroxyaminino-1-methyl-6-phenylimidazo-4(5*b*)-pyridine Cytotoxicity and DNA Adduct Formation in Human Prostate by Glutathione S-Transferase PL. Chad P. Nelson, La Creis R. Kidd, Jurga Sauvageot, William B. Isaacs, Angelo M. De Marzo, John D. Groopman, William G. Nelson, and Thomas W. Kensler.

January 1, Number 1

Clinical Investigations

- 110 Synthesis and Evaluation of ¹⁸F-labeled Choline as an Oncologic Tracer for Positron Emission Tomography: Initial Findings in Prostate Cancer. Timothy R. DeGraff, R. Edward Coleman, Shuang Wang, Steven W. Baldwin, Matthew D. Orr, Cary N. Robertson, Thomas J. Polascik, and David T. Price.

Epidemiology & Prevention

- 118 (+)-Catechin Inhibits Intestinal Tumor Formation and Suppresses Focal Adhesion Kinase Activation in the Min/+ Mouse. Michael J. Weyant, Adelaide M. Cartchers, Andrew J. Dannenberg, and Monica M. Bertagnoli.
- 126 Estrogens Reduce and Withdrawal of Estrogens Increase Risk of Microsatellite Instability-Associated Colon Cancer. Martha L. Slattery, John D. Potter, Karen Cumm, Sandra Edwards, Khee-Ni Ma, Kristin Anderson, Donna Schaffer, and Wade S. Samowitz.

Experimental Therapeutics

- 131 Characterization of the Antitumor Effects of the Selective Farnesyl Protein Transferase Inhibitor R15777 in *In Vitro* and *In Vivo*. David W. End, Gerda Smer, Alison V. Todd, Tanya L. Applegate, Caroline J. Fuery, Patrick Angibaud, Marc Venet, Gerard Sanz, Herve Poignet, Stacy Skrzak, Ann Devine, Walter Wouters, and Charles Bonnard.

- 138 Expression of a Truncated First Exon BCR-Serpin in Chronic Myelogenous Leukemia Cells Blocks Cell Growth and Induces Cell Death. Yan Wang, Jiaxin Liu, Yun Wu, Weiping Luo, Sue-Hwa Lin, Hui Lin, Natalya Hawk, Tong Sun, Jie Qiang Guo, Zeev Estrov, Moshe Talpaz, Richard Champlin, and Ralph B. Arlinghaus.

- 145 Mitochondrial Dysfunction after Aerobic Exposure to the Hypoxic Cytoxin Tirapazamine. Gerald B. Wooters, Yvette M. Delahousse, James W. Evans, Geoffrey W. Birrell, Mary Jo Dorie, Jingli Wang, Dhara MacDermid, Roland K. Choi, and Carol M. Brown.

- 153 *In Situ* Expression of Soluble B7-1 in the Context of Oncovirus Simplex Virus Induces Potent Antitumor Immunity. Tomoko Toda, Robert L. Martuza, Margaret J. Ballman, and Samuel D. Robbins.

- 162 Tumor Cell Vaccine Elicits Potent Antitumor Immunity after Allogeneic T-cell-depleted Bone Marrow Transplantation. Takashiro Teshima, Nicolas Mach, Geoffrey R. Hill, Luying Pan, Silke Gillessen, Glenn Dranoff, and James L. Merritt.

- 172 Simultaneous Treatment with 1-*b*-D-Arabinofuranosylcytosine and Daunorubicin Induces Cross-Resistance to Both Drugs due to a Combination-specific Mechanism in HL60 Cells. Haruyuki Takeuchi, Yoshimasa Urusaki, Akira Yoshida, Toshihiko Fukushima, and Takanori Ueda.

- 178 Induction of Differentiation of Acute Promyelocytic Leukemia Cells by a Cytidine Deaminase-resistant Analogue 1-*b*-Arabinofuranosylcytosine. Nozomi 1-(2'-Deoxy-*b*-D-erythro-pentofuranosyl)cytidine. Natsuji Nishi, Yuki Ishii, Akira Matsuda, and Yoshiro Honna.

- 186 Adenovirus-mediated Cope Expression for the Induction of Therapeutic Radiation in Prostate Cancer. Xiaoyang Li, Michela Marani, Jiang Yu, Bicheng Nan, Jack A. Roth, Shunsuke Kawagura, Binghang Fang, Larry Denner, and Marco Marcelli.

Immunology

- 192 Immunological and Viral Factors Associated with the Response of Vulvar Intraepithelial Neoplasia to Photodynamic Therapy. El-Said Abdell-Hady, Pierre Martin-Hirsch, Maggie Duggan-Keen, Peter L. Stern, James V. Moore, Gerald Corbin, Henry C. Kucherer, and Ian N. Hampson.

- 197 A Retrogen Strategy for Presentation of an Intracellular Tumor Antigen as an Exogenous Antigen by Dendritic Cells Induces Potent Antitumor T Helper and CTL Responses. Zhenyang Yang, Siwei Jenny Hester, Lisa Rollins, Giulio C. Spagnoli, Julie den Bruggen, and Si-Yi Chen.

- 206 Granulocyte/Macrophage-Colony Stimulating Factor Produced by Recombinant Avian Poxviruses Enriches the Regional Lymph Nodes with Antigen-presenting Cells and Acts as an Immunoadjuvant. Erik Kass, Dennis L. Picanici, Gail Mazzara, Jeffrey Schlom, and John W. Greiner.

- 215 Persistence of Immunogenic Pulmonary Metastases in the Presence of Protective Anti-melanoma Immunity. Cherie K. Donawho, Michael W. Pricle, and Margaret L. Kripke.

- 222 Human Heat Shock Protein 70 Peptide Complexes Specifically Activate Antimelanoma T Cells. Chiara Castelli, Anne-Marie T. Clugston, Francesca Rina, Licia Rivoltini, Arabella Mazzocchi, Prof. Kofi Kiessling, and Giorgio Parmiani.

- 228 Local Administration of Dendritic Cells Inhibits Established Breast Tumor Growth: Implications for Apoptosis-inducing Agents. Kimberly A. Canisio, Koichi Shimizu, Julie C. McLaughlin, Robin Kunkel, Jennifer A. Fuller, Bruce G. Redman, Elaine K. Thomas, Brian J. Nickoloff, and James J. Mulé.

- 237 A Novel Role of Metalloproteinase in Cancer-mediated Immunosuppression. Bor-Ching Sheu, Su-Ming Hu, Hong-Neng Ho, Huang-Chun Lien, Su-Cheng Huang, and Rong-Hwa Lin.

- 243 The Chemotherapeutic Drug 5-Fluorouracil Induces Apoptosis in Mouse Thymocytes *In Vitro* via Activation of the CD95(APO-1/Fas) System. Sören T. Eichhorst, Susanne Mückler, Markus A. Wiegand, and Peter H. Kramer.

- 249 Aberrant Promoter Methylation of Multiple Genes in Non-Small Cell Lung Cancers. Sabine Höchstrasser-Muller, Kwan M. Fong, Arvin K. Virmani, Dennis Gerardts, Adi F. Gázdar, and John D. Minna.

- 256 Transforming Growth Factor- β -mediated Growth Inhibition in a Smad4 Mutant Colon Adenocarcinoma Cell Line. Stephen P. Frink, Sandra E. Swanson, James D. Lutterbaugh, Jeanne Massagué, Sam Thangjitham, Kenneth W. Kinzler, Bert Vogelstein, James K. Wilson, and Sanford Markowitz.

- 261 A Role for CCAAT/Enhancer Binding Protein β -Liver-enriched Inhibitory Protein in Mammary Epithelial Cell Proliferation. Cynthia A. Zahnow, Robert D. Cardiff, Rodolfo Lauricera, Daniel Medina, and Jeffrey M. Rosen.

Tumor Biology

- 270 Nonhomologous End-Joining of Ionizing Radiation-induced DNA Double-Stranded Breaks in Human Tumor Cells Deficient in BRCA1 or BRCA2. Huichen Wang, Zhao-Chong Zeng, Tu-Anh Bui, Steven J. DiBiase, Wei Qin, Fen Xia, Simon N. Powell, and George Blakis.

- 278 Mutant E-cadherin Breast Cancer Cells Do Not Display Constitutive Wnt Signaling. Marc van de Watering, Nick Barker, I. Clara Harkes, Marcel van der Heyden, Nicolette J. Dijk, Antoinette Hollselste, Jan G. M. Klijn, Hans Clevers, and Mieke Schutte.

- 285 High Resolution Allelotype of Nonfunctional Pancreatic Endocrine Tumors: Identification of Two Molecular Subgroups with Clinical Implications. Gildas Rigaud, Eduardo Missaglia, Patrick S. Moore, Giuseppe Zambruno, Massimo Faloni, Giorgio Talamini, Anna Pesci, Antonella Baron, Danièle Lissandrini, Guido Rindi, Piergiorgio Grigoletti, Paolo Pedrazzoli, and Aldo Scarpulla.

January 15, Number 2

Advances in Brief

- 419 Inducible Nitric Oxide Synthase (iNOS) Is Expressed Similarly in Multiple Aberrant Crypt Foci and Colorectal Tumors from the Same Patients.** Xing Pei Hao, Thomas G. Pretlow, J. Sunil Rao, and Theresa P. Pretlow.
- 423 Altered Expression of Androgen Receptor in the Malignant Epithelium and Adjacent Stroms Is Associated with Early Relapse in Prostate Cancer.** Susan M. Henshall, David I. Quinn, C. Soon Lee, Darren R. Head, David Golovsky, Phillip C. Bremer, Warwick Delphado, Phillip D. Stricker, John J. Grygiel, and Robert L. Sutherland.
- 428 Persistent Genetic Instability in Cancer Cells Induced by Non-DNA-damaging Stress Responses.** Chuan-Yuan Li, John B. Little, Kang Hu, Wen Zhang, Li Zhang, Mark W. Dewhirst, and Qian Huang.
- 433 Assessment of Tumor Necrosis Factor Receptor and Fas Signaling Pathways by Transcriptional Profiling.** Elizabeth J. Manos and David A. Jones.
- 439 A Novel Response of Cancer Cells to Radiation Involves Autophagy and Formation of Acidic Vesicles.** Shoshana Paglin, Timothy Hollister, Thomas DeLoach, Nadia Hackett, Melissa McMahill, Elena Spivac, Diane Domingo, and Joaquin Yahalom.
- 445 Absence of Endothelial Cells, Central Necrosis, and Fibrosis Are Associated with Aggressive Inflammatory Breast Cancer.** Kazumi Shirakawa, Hitoshi Tsuda, Yuji Heike, Kazumori Kato, Rumiko Asada, Motoko Inomata, Hiroki Sakai, Fujio Furukawa, Masakazu Yoshimoto, Toshihiko Iwanaga, Fumiyo Konishi, Masaki Terada, and Hiro Wakabayashi.
- 452 Coexpression of CD340 and CD40 Ligand in Cutaneous T-Cell Lymphoma (Mycosis Fungoides).** Monique Sterz, Karoline Zepter, Jivko Kamarashev, Reinhard Dummer, Günter Burg, and Andreas C. Waalkes.
- 455 Cadmium-induced Malignant Transformation of Human Prostate Epithelial Cells.** William E. Achanzar, Bhakchandra A. Diwan, Jie Liu, Salman T. Quader, Mrika M. Webber, and Michael P. Waalkes.
- 459 Antitumor Immunity Induced by Laser Immunotherapy and Its Adoptive Transfer.** Wei R. Chen, Anil K. Singhal, Hong Liu, and Robert E. Nordquist.
- 462 RBL2p130 Gene-enhanced Expression Down-regulates Vascular Endothelial Growth Factor Expression and Inhibits Angiogenesis *In Vivo*.** Pier Paolo Claudio, Peter Steigler, Candace M. Howard, Cristiana Bellan, Corrado Minno, Marco Tosì, Janusz Rak, Al Kovatch, Paolo De Fazio, Pietro Micheli, Maria Caputo, Lorenzo Leoncini, Robert Kerbel, Giovani Giacomo Giordano, and Antonio Giordano.
- 469 Interferon γ -dependent Induction of Thymidine Phosphorylase/Platelet-derived Endothelial Growth Factor through γ -Activated Sequence-like Element in Human Macrophages.** Hisatugu Goto, Kimimichi Kohno, Saburo Sone, Shin-ichi Akiyama, Michikazu Kuwano, and Mayumi Ono.
- 474 Synthetic Protein Transduction Domains: Enhanced Transduction Potential *In Vitro* and *In Vivo*.** Alan Ho, Steven R. Schwarz, Sarah J. Mermelstein, Gabriel Waksman, and Steven F. Dowdy.
- 478 Soluble Recombinant Endostatin Purified from *Escherichia coli*: Antiangiogenic Activity and Antitumor Effect.** Xiaojun Wang, Michael K. Wong, Qun Zhao, Zhenyu Zhou, Kent Z. Wang, Nancy Huang, Caisheng Ye, Elieser Gurelik, and Mengfeng Li.
- 482 Inhibiting Mutations in the Transforming Growth Factor β Type 2 Receptor in Recurrent Human Breast Cancer.** Chris D. Lucke, Anna Philpot, James C. Mattock, Alastair M. Thompson, Luke Hughes-Davies, Paul R. Kemp, and Robin Hesketh.
- 486 p53 Induction Prevents Accumulation of Aberrant Transcripts in Cancer Cells.** Caroline Moyet-Lalle, Cyril Duriez, Joris Van Kerckhove, Christel Gilbert, Qing Wang, and Alain Puisieux.
- 489 Posttranslational Truncation and Inactivation of Human E-Cadherin Distinguishes Prostate Cancer from Matched Normal Prostate.** Michael G. Rashid, Martin G. Santa, Christopher J. Vallerius, Jonathan Rio-Dorta, Mark A. Rubin, and Mark L. Day.
- 493 Oligoclonal T-Cell Receptor Usage of Melanocyte Differentiation Antigen-reactive T Cells in Stage IV Melanoma Patients.** David Schrama, Mads Hall Andersen, Patrick Terheyden, Louise Schrøder, Lars Østgaard Pedersen, Per Thor Straten, and Jørgen C. Becker.
- 497 15S-Hydroxyeicosatetraenoic Acid Potentiates Peroxisome Proliferator-activated Receptor γ and Inhibits Proliferation in PC3 Prostate Carcinoma Cells.** Scott B. Shappell, Rajnish A. Gupta, Suzanne Manning, Robert Whitehead, William E. Boeglin, Claus Schneiders, Tom Case, James Price, Gregory S. Jack, Thomas M. Wheeler, Robert J. Matusik, Alan R. Brash, and Raymond N. DuBois.
- 504 Use of Camptothecin-resistant Cell Lines to Evaluate the Role of Topoisomerase II in the Antiproliferative Activity of the Indolecarbazole, NB-506, and Its Topoisomerase I Binding Site.** Yoshimasa Urakami, Gary Laco, Yuji Takebayashi, Christian Ballay, Glenda Kohlhagen, and Yves Poummer.
- 509 Frequent Cytolytic T-Cell Responses to Peptide MAGE-A10 \pm 262 in Melanoma.** Daniela Valmori, Valérie Dutout, Verena Rubis-Godey, Céline Chambaz, Danièle Lienard, Philippe Guillame, Pedro Romero, Jean-Charles Cerottini, and Daniela Rimoldi.
- 513 Loss of p53 but not ARF Accelerates Melanoblastoma in Mice Heterozygous for patched.** Cynthia Wetmore, Derek E. Eberhart, and Tom Curran.
- 517 Antitumor Synergy of CV787, a Prostate Cancer-specific Adenovirus, and Paclitaxel and Doxetaxel.** De-Chan Yu, Yu Chen, Jeanette Dilley, Yuanhao Li, Millicent Embry, Hong Zhang, Natalie Nguyen, Pinky Amin, Joe Oh, and Daniel R. Henderson.

Regular Articles

Tumor Biology

- 526 Intratumoral Administration of Endostatin Plasmid Inhibits Vascular Growth and Perfusion in MCA-24 Murine Mammary Carcinomas.** Ivan Ding, Jian Zhong Sun, Bruce Fenster, Wei Min Lin, Paul Kinseley, Paul Okunieff, and Wang Min.
- 532 Direct Evidence of the Importance of Stromal Urokinase Plasminogen Activator (uPA) in the Growth of an Experimental Human Breast Cancer Using a Combined *uPA* Gene-Disrupted and Immunodeficient Xenograft Model.** Thomas Leif Frandsen, Claus Holst-Hansen, Boje Schnack Nielsen, Ib Jarle Christensen, Jens R. Nyengaard, Peter Carmeliet, and Niels Brügger.

Experimental Therapeutics

- 538 Deregulated Expression of c-mos in Non-Small Cell Lung Carcinomas: Relationship with p53 Status, Genomic Instability, and Tumor Kinetics.** Vassilis G. Gorgoulis, Panayotis Zacharatos, George Mariatos, Triantafylllos Lilioglou, Stavros Kokotas, Nikolaos Kastrakis, Athanassios Kotsinas, Athanassios Athanassiou, Petrelis Foukas, Vassiliki Zoumpourlis, Dimitris Kletsas, John Ikoisopoulos, Panayiotis J. Asimacopoulos, Christos Kitas, and John K. Field.
- 550 Transforming Growth Factor- β 1 Induces Desmoplasia in an Experimental Model of Human Pancreatic Carcinoma.** Matthias Löhr, Christian Schmidt, Jörg Ringel, Mario Kluth, Petra Müller, Horst Nizze, and Ralf Jenrowski.
- 556 Increased Retinoic Acid Responsiveness in Lung Carcinoma Cells that Are Nonresponsive Despite the Presence of Endogenous Retinoic Acid Receptor (RAR) β by Expression of Exogenous Retinoid Receptors Retinoid X Receptor α , RAR α , and RAR γ .** Haisi Wan, Wauan K. Hong, and Reuben Loewenthal.
- 565 Targeted Inactivation of the *p21WAF1/cip1* Gene Enhances Apo- α -initiated Tumor Formation and the Tumor-promoting Activity of a Western-Style High-Risk Diet by Altering Cell Maturation in the Intestinal Mucosa.** Wan Cai Yang, Joseph Mathew, Anna Veileck, Winfried Edelmann, Raju Kucherlapati, Martin Lipkin, Kan Yang, and Leonard P. Jones.
- 570 The Sp Family of Transcription Factors in the Regulation of the Human and Mouse MUC2 Gene Promoters.** Faustina Aslam, Lisa Palumbis, Leonard H. Augenlicht, and Anna Veileck.
- 577 Matrix Metalloproteinase-7-mediated Cleavage of Fas Ligand Protects Tumor Cells from Chemotherapeutic Drug Cytotoxicity.** Nicholas Mitsialis, Wei-hsuan Yu, Vasiliiki Poulati, Maria Tsokos, and Ivan Stanenkovic.
- 582 Overexpression of the G-Protein Inwardly Rectifying Potassium Channel 1 (*GIRK1*) in Primary Breast Carcinomas Correlates with Axillary Lymph Node Metastasis.** Bradley K. Stringer, Amit G. Cooper, and Scott B. Shepard.
- 589 AKT Activation Up-Regulates Insulin-like Growth Factor 1 Receptor Expression and Promotes Invasiveness of Human Pancreatic Cancer Cells.** Satoshi Tanno, Sachio Tanno, Yasuhiro Mitsuchi, Deborah A. Altomare, Guang-Hui Xiao, and Joseph R. Testa.
- 594 Bcl-2 Delays and Alters Hepatic Carcinogenesis Induced by Transforming Growth Factor α .** William E. Vail, Robert H. Pierce, and Nelson Fausto.
- 602 Raf-induced Transformation Requires an Interleukin 1 Autocrine Loop.** Terry Vale, Terri T. Ng, Michael A. White, and Peter E. Lipsky.

Carcinogenesis

- 608 p53 Codon 72 Polymorphism and Various Human Papillomavirus 16 E6 Genotypes Are Risk Factors for Cervical Cancer Development.** Ingeborg Zébe, Gianfranco Vuglione, Erik Wilander, Hajo Delius, Antonella Marongiu, Lutz Eeller, Fritz Klimek, Sonja Andersson, and Massimo Tommasi.
- 612 Tobacco Smoke-induced DNA Damage and an Early Age of Smoking Initiation Induce Chromosome Loss at 3p21 in Lung Cancer.** Tomoko Hirao, Heather H. Nelson, Tara Devi A. Shash, John C. Wain, Eugene J. Mark, David C. Christian, John K. Wiencke, and Karl T. Kealey.
- 616 Human Papillomavirus Type 16 E6 Inactivation of p53 in Normal Human Mammary Epithelial Cells Promotes Tamoxifen-mediated Apoptosis.** Victoria L. Nevald, Krzysztof Mrózek, Eric C. Dietze, Melly Parker, and L. Elizabeth Caldwell.
- 625 Hyperprogression Promotes Adenoma Progression in the APC $Min^{-/-}$ Mouse Model of Familial Adenomatous Polyposis.** Sue A. Watson and Andrew M. Smith.

Endocrinology

- 632 Expression of Estrogen Receptor (ER) Subtypes and ERB Isoforms in Colon Cancer.** Martha Campbell-Thompson, L. Jeanette Lynch, and Bhavna Bhardwaj.

Immunology

- 641 Intramodal Immunization with Tumor Lysate-pulsed Dendritic Cells Enhances Protective Antitumor Immunity.** Laura A. Lambert, Glen R. Gibson, Marybeth Malone, Britton Durrell, Randolph J. Noelle, and Richard J. Barth Jr.

Molecular Biology and Genetics

- 647 Cyclin E is the Only Cyclin-dependent Kinase 2-associated Cyclin that Predicts Metastasis and Survival in Early Stage Non-Small Cell Lung Cancer.** Carsten Müller-Tidow, Ralf Metzger, Karin Kügler, Sven Diederichs, Gregory I. Mischenko, Thomas Bartsch, Barbara Döckhoff-Dörmeczik, Paul M. Schneider, H. Philipp Koehler, Wolfgang E. Beichel, and Hubert Serke.
- 654 Glycophybosidase-linked-anchor Protein Deficiency as a Marker of Myeloid Phenotypes in Cancer.** Rui Chen, James R. Eshleman, Robert A. Brodsky, and M. Edward Medoff.
- 659 Bcr Accelerates Tumorigenesis in p53-deficient Mice.** C. Michael Knudson, Geoffrey M. Johnson, Yuan Lin, and Stanley J. Kornblith.

- 666 Creation and Characterization of 5-Fluorodeoxyuridine-resistant Arg 50 Loop Mutants of Human Thymidylate Synthase.** Daniel M. Landis, Cory C. Heindel, and Lawrence A. Loeb.

- 673 Nuclear Factor- κ B-dependent Expression of Metastasis Suppressor KAI1/C298 Gene in Lung Cancer Cell Lines Expressing Mutant p53.** Tsumoto Shimbara, Toyosaku Miki, Naoki Nishimura, Hiroshi Nohikata, Hirotumi Hamada, Naofumi Mukada, and Saburo Sone.

- 679 Homozygous Deletion of CDKN2A (p16/INK4a/p19 α RF) but not within 1p36 or at Other Tumor Suppressor Loci in Neuroblastoma.** Patricia M. Thompson, John M. Morris, Michael D. Hogarty, Robert C. Seeger, C. Patrick Reynolds, Garrett M. Bradbury, and Peter S. White.

- 687 Glucagon-like Peptide (GLP)-2 Reduces Chemotherapy-associated Mortality and Enhances Cell Survival in Cells Expressing a Transfected GLP-2 Receptor.** Robin P. Bouchez, Bernardo Yusta, and Daniel J. Drucker.

- 694 Taxane-Antibody Conjugates Afford Potent Cytotoxicity, Enhanced Solubility, and Tumor Target Selectivity.** Véronique Guillemand and H. Uri Saragovi.

- 700 Granulocytic Differentiation of Human NB4 Promyelocytic Leukemia Cells Induced by All-trans Retinoic Acid Metabolites.** Nadia Idres, Gérard Benoit, Maria A. Flexor, Michel Lanotte, and Guy Chabot.

- 706 Intratesticular Transplantation of Testicular Cells from Leukemic Rats Causes Transmission of Leukemia.** Kirsi Jähimänen, Mi Hou, Cecilia Petersen, Brian Setchell, and Olle Söder.

- 711 Targeted Delivery of Tissue Factor to the ED-B Domain of Fibronectin, a Marker of Angiogenesis, Mediates the Infarction of Solid Tumors in Mice.** Fredrik Nilsson, Hartwig Kossmehl, Luciano Zardi, and Dario Neri.

- 717 A Photobiological and Photophysical-based Study of Phototoxicity of Two Chlorins.** Brian W. Pogue, Bernhard Ortel, Norah Chen, Robert W. Redmond, and Tayaba Hashmi.

- 725 Antiproliferative Effects of S-allylmercaptocysteine on Colon Cancer Cells When Tested Alone or in Combination with Sulindac Sulfide.** Haim Shirin, John T. Pinto, Yuichi Kawabata, Jae-Won Soh, Thomas DeLoher, Steven F. Moss, Vundavalli Murty, Richard S. Kvistin, Peter R. Holt, and I. Bernard Weinstein.

- 732 Differential p53-dependent Mechanism of Radiosensitization *In Vitro* and *In Vivo* by the Protein Kinase C-specific Inhibitor PKC412.** Kathrin Zaugg, Sonia Rocha, Hildegard Resch, Ivan Hegyi, Christoph Oehler, Christoph Glanzmann, Doriano Fabbro, Stephan Bodis, and Martin Pruschy.

- 739 The HER Tyrosine Kinase Inhibitor CI1033 Enhances Cytotoxicity of 7-Ethyl-10-hydroxycamptothecin and Topotecan by Inhibiting Breast Cancer Resistance Protein-mediated Drug Efflux.** Charles Erlichman, Scott A. Boerner, Christopher G. Hallgren, Rebecca Speier, Xiao-Yang Wang, C. David James, George L. Scheffer, Marc Malpepaard, Douglas D. Ross, Keith C. Bible, and Scott H. Kaufmann.

- 749 *In Vitro* and *In Vivo* Reversal of P-Glycoprotein-mediated Multidrug Resistance by a Novel Potent Modulator, XR8576.** Prakash Misra, Alastair J. Stewart, Wendy Dangerfield, Sade Okije, Chris Liddle, Douglas Bootle, Jane A. Plumb, David Templeton, and Peter Charlton.

- 759 Pretreatment with Paclitaxel Enhances Apo-2 Ligand/Tumor Necrosis Factor-related Apoptosis-inducing Ligand-induced Apoptosis of Prostate Cancer Cells by Inducing Death Receptors 4 and 5 Protein Levels.** Ramadevi Nimmannapalli, Charles L. Perkins, Mariangeli Orlando, Erica O'Bryan, Diep Nguyen, and Kapil N. Bhalla.

- 764 A Truncated Human Xeroderma Pigmentosum Complementation Group A Protein Expressed from an Adenovirus Sensitizes Human Tumor Cells to Ultraviolet Light and Cisplatin.** Elizabeth Rosenberg, Mohmudin M. Taher, Nancy B. Farnsworth, Julie Farnsworth, and Kristoffer Valerie.

- 771 Cumulative and Irreversible Cardiac Mitochondrial Dysfunction Induced by Doxorubicin.** Shany Zhou, Anatoli Starkov, M. Kent Froberg, Richard L. Leino, and Kendall B. Wallace.

Epidemiology

- 778 Nitrated and Oxidized Plasma Proteins in Smokers and Lung Cancer Patients.** Brigitte Pignatelli, Chan Qi Li, Paolo Belforte, Qiqing Chen, Wolfgang Ahrens, Fredrik Nyberg, Anush Mukeria, Irene Bruske-Hohlfeld, Cristina Fortes, Vali Constantinescu, Harry Ischtoupolos, and Hiroshi Ohshima.

- 785 Building a Multigenic Model of Breast Cancer Susceptibility: *CYP17* and *HSID17B* Are Two Important Candidates.** Heather Spencer Fiegelson, Roberta McLean-Cowdin, Gerhard A. Coetzee, Daniel O. Stram, Laurence N. Kolonel, and Eben H. Henderson.

790 Announcements

- 2001 Annual Meeting
Future Annual Meetings of the American Association for Cancer Research
Late-breaking Research Session at the Annual Meeting
Workshop on Pathobiology of Cancer
Workshop on Molecular Biology in Clinical Oncology
Workshop on Methods in Clinical Cancer Research
AACR Special Conferences in Cancer Research
Calendar of Events

792 Correction

- M. V. Fourier *et al.*, *Cancer Res.*, 59: 3748–3753, 1999.

793 Author Index

February 1, Number 3

Perspectives in Cancer Research

- 795 Tumor Hypoxia, the Physiological Link between Troussseau's Syndrome (Carcinoma-induced Coagulopathy) and Metastasis.** Nicholas C. Denko and Amato J. Giaccia

Review

- 799 Selected Cell and Selective Microenvironment in Neoplastic Development.** Harry Rubin

Advances in Brief

- 808 Protein Kinase C- ϵ Transgenic Mice: A Unique Model for Metastatic Squamous Cell Carcinoma.** Aaron P. Jansen, Eric G. Verwiebe, Nancy E. Dreckschmidt, Deric L. Wheeler, Terry D. Oberley, and Ajit K. Verma.

- 813 Efficient Oncolysis by a Replicating Adenovirus (Ad) *In Vivo* Is Critically Dependent on Tumor Expression of Primary Ad Receptors.** Joanne T. Douglas, Myunghee Kim, Lucretia A. Sumerel, Delicia E. Carey, and David T. Currie.

- 818 Evidence That Genetic Instability Occurs at an Early Stage of Colorectal Tumorigenesis.** Ie-Ming Shih, Wei Zhou, Steven N. Goodman, Christoph Lengauer, Kenneth W. Kinzler, and Bert Vogelstein.

- 823 PAX3 Is Expressed in Human Melanoma and Contributes to Tumor Cell Survival.** Florence A. Scholl, Jivko Kamchev, Osmar V. Murrmann, Ralf Goertzen, Reinhard Dummer, and Beat W. Schäfer.

- 827 Methylation of 4-O-Methylguanine DNA Methyltransferase Characterizes a Subset of Colorectal Cancer with Low-level DNA Microsatellite Instability.** Vicki L. J. Whitehead, Michael D. Walsh, Joanne Young, Barbara A. Leggett, and Jeremy R. Jass.

- 831 Simultaneous Detection of Multiple Genetic Aberrations in Single Cells by Spectral Fluorescence *In Situ* Hybridization.** Marilyn L. Slovik, Lucene Tcheumeokdjian, Feiyu F. Zhang, and Joyce L. Murata-Collins.

- 837 Loss of Flt1 Expression Is a Predictor of Poor Outcome in Tongue Cancer.** Janet L. Lee, Jean-Charles Soria, Khalid Hassan, Diane Liu, Ximing Tang, Adel-Nagger, Waam Ki Hong, and Li Ma.

- 842 Vaccination of Malignant Glioma Patients with Peptide-pulsed Dendritic Cells Elicits Systemic Cytotoxicity and Intracranial T-cell Infiltration.** John S. Yu, Christopher J. Wheeler, Paul M. Zeltzer, Han Ying, Divina N. Finger, Paul K. Lee, William H. Yang, Francesca Incardona, Reid C. Thompson, Mary S. Reuelinger, Wenxuan Zhang, Robert M. Prins, and Keith L. Black.

- 848 Risk of Endometrial Cancer and Estrogen Replacement Therapy History by CYP17 Genotype.** Roberta McKeown-Cole, Heather Spencer-Feigelson, Malcolm C. Pike, Gerhard A. Coetze, Laurence N. Kolonel, and Brian E. Henderson.

- 850 Inhibition of Epidermal Growth Factor-induced Cell Transformation and Activator Protein 1 Activation by [6]-Gingerol.** Ann M. Bode, Wei-Ya Ma, Young-Joon Suh, and Zengang Dong.

- 854 A Mammalian Two-Hybrid System for Adenomatous Polyposis Coli-Mutated Colon Cancer Therapeutics.** Kenichi Wakita, Osamu Tezuka, and Frank McCormick.

- 859 Therapeutic Tumor Immunity Induced by Polyimmunotherapy with Melanoma Antigens gp100 and TRP-2.** Sanjeev Kumar Mendiratta, Gerald Thai, Nitin K. Eslati, Nikolyn M. Thull, Majed Matar, Vincenzo Bronte, and Federica Picardi.

- 864 Intraneoplastic Polymer-based Delivery of Cyclophosphamide for Intratumoral Biocureversus by a Replicating Oncolytic Viral Vector.** Tomotsugu Ichikawa, William P. Petros, Susan M. Lehman, Jim Fangmeier, Fred H. Hochberg, O. Michael Colvin, and E. Antonio Chiocca.

- 869 Identification of a Cytotoxic T Lymphocyte Response to the Apoptosis Inhibitor Protein Survivin in Cancer Patients.** Mats Hald Andersen, Lars Østergaard Pedersen, Jørgen C. Becker, and Per Thor Straten.

- 873 Cytotoxic T Lymphocytes from HLA-A2+1 Transgenic Mice Define a Potential Human Epitope from Simian Virus 40 Large T Antigen.** Todd D. Schell, John D. Lippolis, and Satish S. Tevetraha.

- 880 The Collaboration of Both Humoral and Cellular HER-2/neu-targeted Immunologic Responses Is Required for the Complete Eradication of HER-2/neu-expressing Tumors.** R. Todd Reilly, Jean-Pascal H. Machiels, Leisha A. Emens, Anne M. Ercolini, Francesca I. Okoye, Rachel Y. Lei, Diane Weintraub, and Elizabeth M. Jaffee.

- 884 Interleukin-18 (IL-18) Synergizes with IL-2 to Enhance Cytotoxicity, Interferon- γ Production, and Expansion of Natural Killer Cells.** Young Ik Son, Ramsey M. Dallas, Robbie B. Maiwald, Shinichi Egawa, Zenika L. Jonak, and Michael T. Lotze.

- 889 Differential Gene Expression Profiles of Seirrhus Gastric Cancer Cells with High Metastatic Potential to Peritoneum or Lymph Nodes.** Yoshitaka Hippo, Masakazu Yashiro, Masami Ishii, Hiraku Taniguchi, Shuichi Tsutsumi, Kosei Hirakawa, Tatsuhiko Kodama, and Hiroyuki Aburatani.

- 894 Microsatellite Instability and Mismatch Repair Protein Expression in Hereditary and Sporadic Colorectal Carcinogenesis.** Monica Pedroni, Elisa Salvi, Alessandra Scarselli, Francesca Borghi, Mirco Mengatti, Piero Benatti, Antonia Peresperi, Giuseppina Rossi, Monia Foroni, Lorena Losi, Carmela Di Gregorio, Antonio De Pol, Riccardo Naschinski, Ernesto Di Bettà, Bruno Salerni, Maurizio Ponz de Leon, and Luca Roncucci.

- 900 Detection of Aberrantly Methylated κ MH1 Promoter DNA in the Serum of Patients with Microsatellite Unstable Colon Cancer.** William M. Grady, Ashwani Rajput, James D. Lutterbaugh, and Sanford D. Markowitz.

- 903 Overexpression of the Steroid Receptor Coactivator AIB1 in Breast Cancer Correlates with the Absence of Estrogen and Progesterone Receptors and Positivity for p53 and HER2/neu.** Toula Bouras, Melissa C. Southey, and Deon J. Venter.

- 908 The Androgen Receptor and Genetic Susceptibility to Ovarian Cancer: Results from a Case Series.** Douglas A. Levine and Jeff Boyd.

9017

1227 Loss of Caspase-1 and Caspase-3 Protein Expression in Human Prostate Cancer. Rachel N. Winter, Andrew Kramer, Andrew Borkowski, and Natasha Kyriyanou.

1233 Induction of Apoptotic Cell Death and Prevention of Tumor Growth by Ceramide Analogues in Metastatic Human Colon Cancer. Markus Selzner, Alicja Bielawska, Michael A. Morse, Hanne Rüdiger, David Sindram, Yusuf A. Hannun, and Pierre-Alain Clavien.

Advances in Brief

1247 Inhibition of Histone Deacetylase Activity by Trichostatin A Modulates Gene Expression during Mammalian Embryogenesis without Apparent Toxicity. Clara Nervi, Ugo Borello, Francesco Fazi, Viviana Buffa, Pier Giuseppe Pellicci, and Giulio Cesari.

1250 The ZNF217 Gene Amplified in Breast Cancers Promotes Immortalization of Human Mammary Epithelial Cells. Margaret H. Nonet, Martha R. Stampfer, Kwei Chin, Joe W. Gray, Colin C. Collins, and Paul Yaswen.

1255 The Effects of Angiopoietin-1 and -2 on Tumor Growth and Angiogenesis in Human Colon Cancer. Syed A. Ahmad, Wenbiao Liu, Young D. Jung, Fan Michael Wilson, Niels Renommeth, Raymond M. Shabean, Corazon D. Bucana, and Lee M. Ellis.

1260 Apoptosis Induction by the Photosensitizer Ver�eroplatin: Identification of Mitochondrial Adenine Nucleotide Translocase as a Critical Target. Anne-Sophie Belzacq, Etienne Jacotot, Helena L.A. Vieira, Dominique Mistral, David J. Granville, Zhihua Xie, John C. Reed, Guido Kroemer, and Catherine Brenner.

1265 The Fibroblast Growth Factor Receptor 3 (FGFR3) Mutation Is a Strong Indicator of Superficial Bladder Cancer with Low Recurrence Rate. Bas W. G. van Rijn, Irene Lurkin, Francois Radvanyi, Wim J. Kirkels, Theodorus H. van der Kwast, and Ellen C. Zwarthoff.

1269 Age-associated Risk of Cancer among Individuals with *N*-Acetyltransferase 2 (NAT2) Mutations and Mutations in DNA Mismatch Repair Genes. Marshu L. Fraizer, Frederick T. O'Donnell, Shouming Kong, Xiangjun Gu, Imelda Campos, Rajyalakshmi Luther, Patricia M. Lynch, and Christopher L. Amos.

1272 Hydronoxate-Type Matrix Metalloproteinase Inhibitor Batimastat Promotes Liver Metastasis. Achim Kruger, Rita Soeltl, Igor Supov, Charlotte Kopitz, Matthias Arlt, Viktor Magdolen, Nadia Harbeck, Bernd Gansbacher, and Manfred Schmidt.

1276 Coexpression of the Partial Androgen Receptor Enhances the Efficacy of Prostate-specific Antigen Promoter-driven Suicide Gene Therapy for Prostate Cancer Cells at Low Testosterone Concentrations. Satoko Suzuki, Takashi Tadakuma, Tomohiko Asano, and Masamichi Hayakawa.

1280 CEP1612, a Dipeptidyl Protease Inhibitor, Induces p2WAF1 and p2X^{IP3}R Expression and Apoptosis and Inhibits the Growth of the Human Lung Adenocarcinoma A-549 in Nude Mice. Jiashi Sun, Sangki Nam, Chang Sun Lee, Beni Li, Domenico Coppola, Andrew D. Hamilton, Q. Ping Dou, and Said M. Sebiti.

1284 Cytokine Gene Expression in Neoplastic B Cells from Human Mantle Cell, Follicular, and Marginal Zone Lymphomas and in Their Postulated Normal Counterparts. Irini Airoldi, Roberta Guglielmino, Fabio Ghiozzo, Anna Corcione, Paola Facchetti, Mauro Truini, and Vito Pistoia.

1291 Ovarian Epithelial Cell Lineage-specific Gene Expression Using the Prototype of a Retrovirus-like Element. Muñoz Selvamurukan, Rudi Bao, Anne P. G. Crispi, Denise C. Comolly, Jillian K. Weinstein, and Thomas C. Hamilton.

1295 Invasiveness of Cutaneous Malignant Melanoma Is Influenced by Matrix Metalloproteinase 1 Gene Polymorphism. Shu Ye, Suhai Dahlron, Steven J. Turner, Adrian C. Bateman, Jeffrey M. Theaker, Ruth M. Pickering, Ian Day, and Martin Howell.

1299 Detection of Mitochondrial DNA Mutations in Pancreatic Cancer Offers a "Massive" Advantage over Detection of Nuclear DNA Mutations. Jesus B. Jones, Jason J. Song, Paula M. Hemen, Giovanni Parmigiani, Ralph H. Hruban, and Scott E. Kern.

1305 Epistatic Interactions between Tumour Modifier Loci in Interspecific (*sppetes/musculus*) Backcross Mice. Hiroki Nagase, Jian-Hua Mao, John P. de Koning, Tomoe Minami, and Allan Balmain.

1309 Chromosomal Alterations in Lung Adenocarcinoma from Smokers and Nonsmokers. Montserrat Sanchez-Cespedes, Steven A. Abrahart, Steven Piantadosi, Rafael Rosell, Maria Monzo, Li Wu, William H. Westra, Steven C. Yang, Jin Jen, and David Sidhu.

1314 Resistance to Tumor Necrosis Factor-related Apoptosis-inducing Ligand-induced Apoptosis in Neuroblastoma Cells Correlates with a Loss of Caspase-8 Expression. Angelika Eggerl, Michael A. Gotzler, Tycho J. Zuidar, Barbara R. Wiedrodt, Ruth Ho, Naohiko Begaki, and Garrett M. Brodeur.

1320 Breast Stromal Plays a Dominant Regulatory Role in Breast Epithelial Growth and Differentiation: Implications for Tumor Development and Progression. Malathy P. V. Shekar, Jill Wendell, Steve J. Santner, Robert J. Pauley, and Larry Tait.

1324 DNA Methylation Transferase Inhibition Enhances Apoptosis Induced by Histone Deacetylase Inhibitors. Wei-Guo Zhu, Romola R. Lakshmanan, Matthew D. Beal, and Gregory A. Otterson.

1328 Global Effects of Anchorage on Gene Expression during Mammalian Carcinoma Cell Growth Reveal Role of Tumor Necrosis Factor-related Apoptosis-inducing Ligand in Anoklis. Gary S. Goldberg, Zhenyu Jin, Hitoshi Ichikawa, Akimoto Naito, Misao Ohki, Wafik S. El-Deyari, and Hiroyuki Tsuda.

1332 Down-regulation of Promoter L3 Activity of the Human Aromatic Gene in Breast Tissue by Zinc-finger Protein, Snail (Snail). Tomoharu Okubo, Thong K. Truong, Bin Yu, Toru Itoh, Jin Zhao, Baiba Grube, Dujun Zhou, and Shihuan Chen.

1337 Phosphorylation- and SKP1-independent *In Vitro* Ubiquitination of E2F1 by Multiple ROC/Cullin Ligases. Tomohiko Ohta and Yue Xiong.

1241 Announcements

2001 Annual Meeting
Future Annual Meetings of the American Association for Cancer Research
Late-breaking Research Session at the Annual Meeting
Workshop on Pathobiology of Cancer
Workshop on Molecular Biology in Clinical Oncology
Workshop on Methods in Clinical Cancer Research
AACR Special Conferences in Cancer Research
Calendar of Events

February 15, Number 4

1354 Modulation of Nucleotide Excision Repair Capacity by XPD Polymorphisms in Lung Cancer Patients. Margaret R. Spitz, Xifeng Wu, Yunfei Wang, Li-E Wang, Shanay Shete, Christopher I. Amos, Zhangzheng Guo, Lei Lei, Harvey Mohnewein, and Qingyi Wei.

1358 Erythropoietin Restores the Anemia-induced Reduction in Cyclophosphamide Cytotoxicity in Rat Tumors. Oliver Thews, Debra K. Kelleher, and Peter Vaupel.

Regular Articles

Biochemistry and Biophysics

1362 Altered Profiles in Nuclear Matrix Proteins Associated with *In Situ* during Progression of Breast Cancer Cells. Virginia A. Spencer, Shanti K. Samuel, and James R. Davis.

1367 Up-Regulation of Urokinase-type Plasminogen Activator by Insulin-like Growth Factor-1 Regulates upon Phosphatidylinositol 3-Kinase and Mitogen-activated Protein Kinase Kinase. Sandra E. Dunn, Johanna V. Torres, Jennifer S. Ob, David M. Cyert, and J. Carl Barrett.

Carcinogenesis

1375 Elevated Protein Kinase C β II is an Early Promotive Event in Colon Carcinogenesis. Yesim Gökmen-Polar, Nicole R. Murray, Marco A. Velasco, Zoran Gatalica, and Alan P. Fields.

1382 Frequent Mutations of *Foxe* Gene in Thyroid Lymphoma. Tetsuya Takahashi, Zhenling Dong, Hitoshi Takayama, Fumio Matsuzaka, Shigekazu Nagata, and Katsuyuki Azouza.

1386 Suppression of Tumor Cell Growth Both in Nude Mice and in Culture by o-3 Polyunsaturated Fatty Acids: Mediation through Cyclooxygenase-independent Pathways. Mary D. Bourneau, Kyung Hee Sohn, Sang Hoon Rhie, Sam W. Lee, Jay H. Dunn, and Daniel H. Hwang.

1392 Involvement of Mammalian MLH1 in the Apoptotic Response to Peroxide-induced Oxidative Stress. Rebecca A. Hardman, Cynthia A. Afshari, and J. Carl Barrett.

1398 Crkl Enhances Leukemogenesis in *BCR/ABL* PI10 Transgenic Mice. Bianca Hemmerlyckx, Arnoud van Wijk, Anja Reijerse, Vesla Kaartinen, Ron de Jong, Mary D. Bourneau, Ignacio Gonzalez-Gomez, John Groffen, and Nora Heisterkamp.

Clinical Investigations

1406 Increased Gastric Cell Kinase Apoptosis Associated with Colonization with *cagA+* *Helicobacter pylori* Strains. Steven F. Moss, Emilia Mia Sordillo, Abdalmalik Abdalla, Vladimir Makarov, Zoltan Hanley, Guillermo I. Perez-Perez, Martin J. Blaser, and Peter R. Holt.

1412 P-Glycoprotein and Multidrug Resistance-related Protein Expressions in Relation to Technetium-99m Methoxyisobutylisonitrile Scintimammography Findings. Cha-Hung Kao, Shih-Chuan Tsai, Tse-Jia Liu, Yung-Jen Ho, Hsi-Jung Wang, Shung-Tai Ho, and Sheng-Ping Chang-Lai.

1415 The COOH-terminal Kinase Csk Is a Tumor Antigen in Human Carcinoma. Christine Bräuer, Jean-François Bourgault, Hélène Chapuis, Nicolas Motte, Serge Roche, and Jean-Pierre Balti.

1421 Thymidine Kinase and Thymidylate Synthase in Advanced Breast Cancer: Response to Taxotere and Chemotherapy. John A. Freken, Sylvie Roman, Maxime P. Lusk, Pierre-Marie Martin, and Jan G. M. Klijn.

Endocrinology

1426 Increased *In Vivo* Phosphorylation of Rat Tyrosine 1062 Is a Potential Pathogenic Mechanism of Multiple Endocrine Neoplasia Type 2B. Damiano Salvatore, Rosa Maria Melillo, Camerino Moneti, Roberta Vicentini, Gianfranco Fenzi, Giancarlo Vecchio, Alfredo Fusco, and Massimo Santoro.

1432 Role of the Central Melanocortin System in Cachexia. Daniel L. Marks, Nicholas Ling, and Roger D. Cone.

1439 Vitamin D Is a Prosurvival in Breast Cancer Cells. Ruth Koren, Irit Hadar-Noy, Efrat Zuck, Carmela Rotem, Uri A. Liberman, and Amiram Ravid.

Epidemiology and Prevention

1445 Sensitivity to DNA Damage Induced by Benzopyrene Diol Epoxide and Risk of Lung Cancer: A Case-Control Analysis. Donghai Li, Pervez F. Firsov, Li-Fang Wang, Carol B. Bosken, Margaret R. Spitz, Waun Ki Hong, and Qingyi Wei.

1451 Increased Expression of Cyclooxygenase-2 Protein in 4-Nitroquinoline-1-oxide-induced Rat Tongue Carcinomas and Chemopreventive Efficacy of a Specific Inhibitor. Nimeshish Hoshii, Ayumi Denda, Kazuhiko Yamamoto, Wakashi Kitayama, Takehiko Endoh, Yusatoku Sasaki, Masahiro Totsuka, Masahito Sugimura, and Yoichi Konishi.

1457 Randomized Trial of Supplemental β -Carotene to Prevent Second Head and Neck Cancer. Susan T. Mayne, Brenda Cartmel, Marianne Baum, Gail Sherman, Barbara G. Fallon, Kenneth Brisbin, Judy Bean, Tongzhang Zheng, Dennis Cooper, Craig Friedman, and W. Jarrard Goodwin, Jr.

1243 Erratum

January 1, 2001 *Cancer Research* Table of Contents

1244 Author Index

Experimental Therapeutics

1464 Tyrosine Kinase Inhibition of Multiple Angiogenic Growth Factor Receptors Improves Survival in Mice Bearing Colon Cancer Liver Metastases by Inhibition of Endothelial Cell Survival Mechanisms. Raymond M. Shaheen, William W. Tseng, Darren W. Davis, Wenbiao Liu, Niels Reinmuth, Roberto Velagapudi, Andrew A. Wieczorek, Yasuhisa Ogura, David J. McConkey, Kenneth E. Dragan, Corazon D. Bucana, Gerald McMahon, and Lee M. Ellis.

1469 The Pharmacological Phenotype of Combined Multidrug-Resistance *mdr1a/mdr2* and *mrp1*-deficient Mice. Dennis R. Johnson, Rick A. Finch, Z. Ping Lin, Caroline J. Zeiss, and Alan C. Sartorelli.

1477 Combination of Phenylbutyrate and 13-cis Retinoic Acid Inhibits Prostate Tumor Growth and Angiogenesis. Roberto Mili, Mark P. Kruszewski, Brian W. Hager, Julie Lantz, and Michael A. Carducci.

1486 Identification and Characterization of A-105972, an Antineoplastic Agent. Jinyushan R. Wu-Wong, Jeffery D. Alder, Lisa Alder, Karl Kerr, David Burns, Edward K-H. Han, Bruce Credé, Stephen K. Tahir, Brian D. Dayton, Patricia J. Ewing, and William J. Chiou.

1493 Pharmacological Inhibition of Fatty Acid Synthase Activity Produces Both Cytostatic and Cytotoxic Effects Modulated by p53. Jing-Nong Li, Myriam Gorospe, Francis J. Chrest, Tinkuakandrum S. Kumaravel, Michele K. Evans, Wan Fang Han, and Ellen S. Pizer.

1500 The Level of MHC Class I Expression on Murine Adenocarcinoma Can Change the Antitumor Effector Mechanism of Immunocompetent Therapy. Michael Imbold, Kristopher R. Murphy, Alexander L. Rakhamilevich, Zane C. Neal, Rong Xiang, Ralph A. Resnick, Stephen D. Gillies, and Paul M. Sondel.

1508 p53 Modulates the Effect of Loss of DNA Mismatch Repair on the Sensitivity of Human Colon Cancer Cells to the Cytotoxic and Mutagenic Effects of Cisplatin. Xinjian Lin, Krishnan Ramamurti, Misako Mishima, Akira Kondo, Randolph D. Christen, and Stephen B. Howell.

1517 Interferon-inducible Protein 10 Induction and Inhibition of Angiogenesis *in Vivo* by the Antitumor Agent 5,6-Dimethylxanthene-4-acetic Acid (DMXAA). Zhihai Cao, Bruce C Bagaley, and Latish-Ming Cheng.

1522 Methotrexate Accumulates to Similar Levels in Animals Transplanted with Normal or Drug-resistant Transgenic Marrow. Lalitha R. Belur, Debra Boek Galvan, Michael D. Diers, R. Scott McIvor, and Cheryl L. Zimmerman.

1527 Antitumor Activity of the Rapamycin Analog CCI-779 in Human Primitive Neuroectodermal/Tumor/Medulloblastoma Models as Single Agent and in Combination Chemotherapy. Birgit Georger, Karol Kerr, Cheng-Bi Tang, Kar-Ming Fung, Bruce Powell, Leslie N. Sutton, Peter C. Phillips, and Anna J. Janss.

1533 Inhibition of Extracellular Signal-regulated Kinase (ERK) Mediates Cell Cycle Phase Independent Apoptosis in Vinblastine-treated ML-1 Cells. Terrance A. Stadhoud, Helen Xiao, and Alan Watson.

1541 Inhibition of Extracellular Signal-regulated Kinase 1/2 Phosphorylation and Induction of Apoptosis by Sulindac Metabolites. Pamela L. Rice, Ryan J. Goldberg, Evan C. Ray, Linda J. Driggers, and Dennis J. Ahnen.

1548 Targeting a Genetically Engineered Elastinase to Solid Tumors by Local Hyperthermia. Dan E. Meyer, Gartheng A. Kong, Mark W. Dewhirst, Michael R. Zalusky, and Ashrafot Chikofa.

1555 Antibodies Elicited by Naked DNA Vaccination against the Complementary-determining Region 3 Hypervariable Region of Immunoglobulin Heavy Chain Identify Determinants of B-lymphoproliferative Disorders Specifically React with Patients' Tumor Cells. Monica Rinaldi, Francesco Rizzi, Paola Parrella, Emanuela Signori, Anna Serra, Silvia A. Ciarelli, Isabella Vespignani, Marzia Lazarri, Maria Giulia Farace, Giuseppe Saglio, and Vito M. Fazio.

Molecular Biology and Genetics

1563 Identification and Characterization of Protein, a Novel Prostate-specific Protein. Jiangzhou Xu, Michael Kalos, John A. Stolk, Eden J. Zasloff, Xinxin Zhang, Raymond L. Houghton, Aristides Maltez, Filippo Marcos Nolasco, Roberto Badaro, and Steven G. Reed.

1569 Gene Expression Patterns Associated with the Metastatic Phenotype in Rodent and Human Tumors. Andrea Nestl, Oliver D. Von Stein, Kurt Zatloukal, Wolf-Gerold Thies, Peter Herrlich, Martin Hofmann, and Jonathan P. Sleeman.

1578 Effect of Adenoviral Transduction of the Fragile Histidine Triade gene into Exophageal Cancer Cells. Hideto Ishii, Kristoffel R. Dumon, Andrea Vecchione, Francesco Trapasso, Koshi Mimori, Hansjorg Alder, Masaki Mori, Gabriella Sozza, Raffaele Biffi, Kay Hueber, and Carlo M. Croce.

1585 End-joining Deficiency and Radiosensitization Induced by Gemcitabine. John W. van Putten, Harry J. M. Groot, Kees Smid, Godefridus J. Peters, and Harm H. Kamminga.

1592 Transcriptional Activation of the Human HMG1 gene in Cisplatin-resistant Human Cancer Cells. Ganji Nagatani, Minoru Nomoto, Hiroshi Tomoko, Tomoko Ise, Ken Kata, Toshihiko Imamura, Hiroto Izumi, Kazumi Makishima, and Kimitsugu Kohno.

1598 A Possible Role of p73 on the Modulation of p53 Level through MDM2. Xiao Qian Wang, Wieg M. Ongeko, Anita W. S. Lau, Ka Man Leung, and Randy Y. C. Poon.

1604 Resveratrol-induced Activation of p53 and Apoptosis Is Mediated by Extracellular-Signal-regulated Protein Kinases and p38 Kinase. Qing-Bai She, Ann M. Brode, Wei-Ya Ma, Nan-Yue Chen, and Zigang Dong.

CONTENTS OF VOLUME 61

- 1611 Prostate Short-Chain Dehydrogenase Reductase 1 (*PSDR1*): A New Member of the Short-Chain Steroid Dehydrogenase/Reductase Family Highly Expressed in Normal and Neoplastic Prostate Epithelium.** Baoyang Lin, James T. White, Camari Ferguson, Shunyu Wang, Robert Vessella, Roger Bumgarner, Lawrence D. True, Leroy Hood, and Peter S. Nelson.
- 1619 *MSH6* and *MSH3* Are Rarely Involved in Genetic Predisposition to Non-polyposis Colon Cancer.** Jiabei Huang, Shannon A. Kuusmanen, Tao Liu, Robert B. Chadwick, Cheryl K. Johnson, Michael W. Stevens, Samuel K. Richards, Julie E. Meek, Xin Guo, Fred A. Wright, Jukka-Pekka Mecklin, Heikki J. Järvinen, Henrik Grönberg, Marie-Lise Bisgaard, Annika Lindblom, and Päivi Penttomahti.
- 1624 Cancer-specific Genomic Instability in Bronchial Lavage: A Molecular Tool for Lung Cancer Detection.** Triantafyllos Liatsikou, Paul Maloney, George Xirinakis, Melanie Hubert, Martin J. Walsh, John R. Gosney, Lesley Turnbull, and John K. Field.
- 1629 Tempered Nucleotide Addition and Immunoglobulin *Jp*-Gene Utilization in t(11;14) Junctions: Implications for the Mechanism of Translocation and the Origin of Mantle Cell Lymphoma.** Natascha Welzel, Trang Le, Roding Marzoculos, Gerlinde Mitterhofer, Andreas Chott, Christiane Pott, Michael Kuech, Ming-Qing Du, Rajko Knezev, Johannes Drach, Markus Raderer, Christine Manhartler, Klaus Lechner, Bertrand Nadel, and Ulrich Jaeger.
- Tumor Biology**
- 1637 Receptor Activator of Nuclear Factor- κ B Ligand (RANKL) Is a Key Molecular of Osteoclast Formation for Bone Metastasis in a Newly Developed Model of Human Neuroblastoma.** Toshimi Michigami, Miyuki Ibara-Watanabe, Miwa Yamazaki, and Keiichi Ozono.
- 1645 Anticancer Agents Sensitize Tumor Cells to Tumor Necrosis Factor-related Apoptosis-inducing Ligand-mediated Caspase-8 Activation and Apoptosis.** Sandrine Lacour, Arlette Hammam, Anne Wotawa, Laurent Corcos, Eric Solary, and Marie-Thérèse Dimanche-Buistreil.
- 1652 Identification of *CGA* as a Novel Estrogen Receptor-responsive Gene in Breast Cancer: An Outstanding Candidate Marker to Predict the Response to Endocrine Therapy.** Ivan Bièche, Béatrice Parfait, Vivianne Le Duossal, Martine Olivi, Marie-Christine Rio, Rosette Lidereau, and Michel Vandurd.
-
- Advances in Brief**
- 1675 Breast Cancer Metastatic Potential Correlates with a Breakdown in Homospecific and Heterospecific Gap Junctional Intercellular Communication.** Marlene M. Sanders, M. Jaber Seraj, Zhengyong Li, Zhiyi Zhou, Cathy R. Winter, Danny R. Welch, and Henry J. Donahue.
- 1768 The 104–123 Amino Acid Sequence of the β -domain of von Hippel-Lindau Protein Is Sufficient to Inhibit Renal Tumor Growth and Invasion.** Kannan Datta, Christian Sundberg, S. Ananth Karunamuni, and Dehabata Mukhopadhyay.
- 1776 Suppression of a Squamous Cell Carcinoma (SCC)-related Serpin, SCC Antigen, Inhibits Tumor Growth with Increased Intratumor Infiltration of Natural Killer Cells.** Yoshimori Sumimura, Shigeki Nagashima, Akifumi Murakami, Shugo Nawata, Toshihiko Gondo, Hiroshi Hirakawa, Fumitaka Numa, Gary A. Silverman, and Hiroshi Kato.
- 1781 Noninvasive Imaging of α -D₂S Integrin Expression Using ¹⁸F-labeled RGD-containing Glycopptide and Positron Emission Tomography.** Roland Hahnbar, Hans-Jürgen Wester, Wolfgang A. Weber, Christian Mang, Silvile I. Ziegler, Simon L. Goodman, Reinhard Senekowitsch-Schmidknecht, Horst Kessler, and Markus Schwaiger.
- 1786 Vascular Endothelial Growth Factor C Promotes Tumor Lymphangiogenesis and Intralymphatic Tumor Growth.** Terhi Karpanen, Mikala Egeblad, Marika J. Kirkkainen, Hajime Kubo, Seppo Ylä-Herttula, Marja Jäätsela, and Kari Alitalo.
- 1791 Silene-induced Activation of c-Jun-NH₂-Terminal Amino Kinases, Proteostatic Expression of the Activator Protein-1 Proto-Oncogene, *fos*, and S-Phase Alterations Are Mediated via Oxidative Stress.** Ari Shukla, Cynthia R. Timblin, Andreea K. Hubbard, Jonathan Bravman, and Brooke T. Messman.
- 1796 Adenovirus Expressing *RIZ1* in Tumor Suppressor Gene Therapy of Microsatellite-unstable Colorectal Cancers.** Gang-Liang Jiang and Shi Huang.
- 1799 Geldanamycin and Its Analogue 17-Allylamino-17-demethoxygeldanamycin Lowers Bcr-Abl Levels and Induces Apoptosis and Differentiation of Bcr-Abl-positive Human Leukemic Blasts.** Ramadevi Nimmannipati, Erica O'Bryan, and Kapil Bhalla.
- 1805 Protease Pre-treatment Increases the Efficacy of Adenovirus-mediated Gene Therapy for the Treatment of an Experimental Glioblastoma Model.** Nagato Kuriyama, Hiroko Kuriyama, Carol M. Juhn, Kathleen R. Lamborn, and Mark A. Israel.
- 1810 Proline Oxidase, Encoded by p53-induced Gene-6, Catalyzes the Generation of Proline-dependent Reactive Oxygen Species.** Steven P. Donald, Xiao-Ya Sun, Chien-An A. Hu, Jian Yu, Jay M. Mei, David Valle, and James M. Phang.
- 1816 Tumorigenic Effect of Nonfunctional p53 or p21 in Mice Mutant in the Werner Syndrome Helicase.** Michel Lebel, Robert D. Cardiff, and Philip Leder.
- 1820 Elevated Breast Cancer Risk in Irradiated BALB/c Mice Associates with Unique Functional Polymorphism of the *Pkd2* (DNA-dependent Protein Kinase Catalytic Subunit) Gene.** Yongjia Yu, Ryuchi Okuyasu, Michael M. West, Andy Silver, Maureen McCarthy, Ryan Zabriskie, Scott Long, Roger Cox, and Robert L. Ullrich.
- 1825 Gene Expression Profiling with Oligonucleotide Microarrays Distinguishes World Health Organization Grade of Oligodendrogliomas.** Mark A. Watson, Arie Petty, Vikram Budhiraja, Chindo Hicks, William D. Shannon, and Keith M. Rich.
- 1830 Hypoxia Inducible Factor (HIF-1 α and HIF-2 α) Expression in Early Esophageal Cancer and Response to Photodynamic Therapy and Radiotherapy.** Michael I. Koukourakis, Alexandra Giatromanolaki, John Skarlatos, Luigi Cotti, Stella Blandamura, Mario Piazza, Kevin C. Gatter, and Adrian L. Harris.
-
- 1659 DNA Fragments in the Blood Plasma of Cancer Patients: Quantitations and Evidence for Their Origin from Apoptotic and Necrotic Cells.** Sabine Jahr, Hannes Henzler, Sabine Englisch, Dieter Hardt, Frank O. Fackelmayer, Rolf-Dieter Hesch, and Rolf Knippers.
- 1666 Prognostic Significance of Poly(ADP-Ribose) Polymerase Expression in Resected Non-Small Cell Lung Cancer.** Fumihiko Tanaka, Yusuke Oda, Taro Nakagawa, Toyo Kawano, Ryo Miyahara, Mio Li, Kazuhisa Yanagihara, Kenji Inui, Hiroki Oyanagi, Tomoko Yamada, Jun Nakayama, Ichiro Fujimoto, Katsuhiro Benkou, and Hiromi Wada.
- 1671 Gefitinib/marimavirin Abrogates Erbb2 Association with Proteasome-resistant β -Catenin in Melanoma Cells, Increases β -Catenin- κ -Cardinale Association, and Decreases β -Catenin-sensitive Transcription.** Paolo Bonatti, Won G. An, Andrew J. Holden, Phuong Nguyen, Jane Trepel, Antonio Garcia de Herreros, Mircea Dumitri, and Leonidas M. Necker.
- 1678 Identification of Genes Involved in Human Urothelial Cell-Matrix Interactions: Implications for the Progression Pathways of Malignant Urothelium.** Barbara A. Smith, Wendy J. Kennedy, Patricia Hamden, Peter J. Selby, Ludwijk B. Tjeenk Willink, and Jennifer Southgate.
- 1686 Catalytic Cleavage of the Androgen-regulated TMPRSS2 Protease Results in Its Secretion by Prostate and Prostate Cancer Epithelia.** Daniel E. H. Afshar, Igor Yivane, Renee S. Hubert, James Kue, Emily Chan, Douglas C. Saffran, Arthur B. Raitano, and Aya Jakobowitz.
- 1693 Drug Resistance Induced by Onabain via the Stimulation of *MDM1* Gene Expression in Human Carcinomatous Pulmonary Cells.** Franck Brunoli, Danièle Tonellolet, Alexander Edelman, and Maryvonne Baudouin-Legros.
- 1699 Overexpression of BCL-X_L Underlies the Molecular Basis for Resistance to Staurosporine-induced Apoptosis in PC-3 Cells.** XianYing Li, Michaela Mariani, Roberta Manucci, Bertha Kinsey, Francesca Andriani, Ildo Nicollai, Larry Demmer, and Marco Marcelli.
- 1707 Anoikis and Metastatic Potential of Cloudman S91 Melanoma Cells.** Zhenyu Zhu, Otto Sanchez-Sweattman, Xiaojun Huang, Robert Wiltrout, Rama Krishna, Qun Zhu, and Eliezer Gorenstein.
- 1717 Inhibition of Fibroblast Growth Factor/Fibroblast Growth Factor Receptor Activity in Gloma Cells Impedes Tumor Growth by Both Angiogenesis-dependent and -independent Mechanisms.** Patrick Auguste, Demetra B. Gürel, Sylvie Lemière, Diana Reimers, Pedro Cuevas, Fernando Carceller, James P. Di Santo, and Andreas Birkhäuser.
-
- 1760 Announcements**
- 2001 Annual Meeting
Future Annual Meetings of the American Association for Cancer Research
Late-breaking Research Session at the Annual Meeting
Workshop on Pathobiology of Cancer
Workshop on Molecular Biology in Clinical Oncology
Workshop on Methods in Clinical Cancer Research
AACR Special Conferences in Cancer Research
Calendar of Events
- 1763 Author Index**
-
- March 1, Number 5**
- 1833 Invasion-specific Genes in Malignancy: Serial Analysis of Gene Expression Comparisons of Primary and Passaged Cancers.** Byungwoo Ryu, Jessa Jones, Michael A. Hollingshead, Ralph H. Hruban, and Scott E. Kern.
- 1839 Aberrant Expression of HDMPX Proteins in Tumor Cells Correlates with Wild-Type p53.** Yolande F. M. Ramos, Robert Stahl, Joline Attewell, Lucy T. C. Pehlberg, Alex J. van der Eb, and Aart G. Jochemsen.
- 1843 Somatic Mutation of Mitochondrial DNA in Carcancers and Noncarcancers Liver Tissue in Benign and Malignant Carcinoma.** Manabu Nishizuka, Shuei Nishiguchi, Susumu Shioiri, Akihiro Tamori, Noritoshi Koh, Tadashi Takeeda, Shigeo Kubo, Kazuhiko Hirohashi, Hiroaki Kinoshita, Etsuko Sato, and Masayasu Inoue.
- 1846 Target Cell-restricted Triggering of the CD95 (APO-1/Fas) Death Receptor with Bispecific Antibody Fragments.** Gundrum Jung, Ludger Gross-Hovest, Peter H. Kramer, and Hans-Görg Rammensee.
-
- Regular Articles**
- Biochemistry and Biophysics**
- 1849 Increased Oxidative Stress in Ataxia Telangiectasia Evidenced by Alterations in Redox State of Brains from Ataxin-deficient Mice.** Ariel Kamser, Dovrat Dayal, Ayala Hochman, Nora Stern, Yosef Shiloh, Galit Rotman, and Ari Barzilai.
- 1855 Phosphotyrosyl 3-Kinase Activity in Epidermal Growth Factor-stimulated Matrix Metalloproteinase-9 Production and Cell Surface Association.** Shawna M. Ellerbroek, Jennifer M. Halbleib, Mario Benavides, Jane K. Warkma, Elizabeth V. Waterberg, M. Sharon Stack, and Laurie G. Hudmon.
- 1862 XIAP Regulates Akt Activity and Caspase-3-dependent Cleavage during Caspase-3-induced Apoptosis in Human Ovarian Epithelial Cancer Cells.** Eric Asselin, Gordon B. Mills, and Benjamin K. Tsang.
- 1869 Rapid Release of Intracellular Galectin-3 from Breast Carcinoma Cells by Fetusin.** Wen-Qin Zhu and Josiah Ochieng.
-
- Carcinogenesis**
- 1874 Sequential Analysis of Morphological and Biological Properties of β -Catenin-acumulated Crypts: Provably Prenatal Lesions Independent of Aberrant Crypt Foci in Rat Colon Carcinogenesis.** Yasuhiro Yamada, Naoki Yoshimi, Yoshinori Hirose, Kengo Matsunaga, Masumi Katayama, Keiko Sakata, Masahito Shimizu, Toshiya Kuro, and Hideki Mori.
- 1879 A Clonal Growth Model: Time-course Simulation of Liver Foci Growth following Penta- or Hexachlorobenzene Treatment in a Medium-term Bioassay.** Ying C. Ou, Rory B. Connolly, Russell S. Thomas, Yihua Xu, Melvin E. Andersen, Laura S. Chubb, Henry C. Pitot, and Raymond S. H. Yang.
-
- Clinical Investigations**
- 1880 erbB2 Overexpression on Occult Metastatic Cells in Bone Marrow Predicts Poor Clinical Outcome in Some Stage I-II Breast Cancer Patients.** Stephan Braun, Goran Schlimok, Isabella Heunus, Gerhard Schaller, Lutz Riedelhof, Gert Reithmayer, and Klaus Pantel.
- 1896 Heterogeneous Nuclear Ribonucleoprotein B1 as Early Cancer Biomarker for Occult Cancer of Human Lungs and Bronchial Dysplasia.** Eisaburo Sueoka, Naoko Sueoka, Yumi Goto, Satomi Matsumaya, Hitoshi Nishimura, Masami Sato, Shigeumi Fujimura, Hiroshi Chiba, and Hiroto Fujiki.
- 1903 Key Importance of the Helicobacter pylori Adherence Factor Blood Group Agceptor Binding Adhesin during Chronic Gastric Inflammation.** Christian Prinz, Martin Schöniger, Roland Rad, Ingrid Becker, Erwin Keditsch, Stephan Wagnleitner, Meinhard Classen, Thomas Rosch, Wolfgang Schepp, and Markus Gerhard.
-
- Endocrinology**
- 1910 Overexpression of Aromaticase Leads to Hyperplasia and Changes in the Expression of Genes Involved in Apoptosis, Cell Cycle, Growth, and Tumor Suppressor Functions in the Mammary Glands of Transgenic Mice.** Namee Kirma, Kiran Gill, Ussha Mandava, and Rajeshwar Rao Tekmal.
- 1919 Evaluation of Androgen, Estrogen (*Era* and *ER β*), and Progesterone Receptor Expression in Human Prostate Cancer by Real-Time Quantitative Reverse Transcription-Polymerase Chain Reaction Assays.** Alain Latil, Ivan Bièche, Dominique Vidaud, Rosette Lidereau, Philippe Berthon, Olivier Cussenot, and Michel Vidaud.
-
- Epidemiology and Prevention**
- 1927 Modulation of Experimental Colon Tumorigenesis by Types and Amounts of Dietary Fatty Acids.** Chinthpalapally V. Rao, Yoshinobu Hirone, Cooma Indiran, and Bandaru S. Reddy.
- 1934 Human Papillomavirus 16 and 18 L1 Serology Compared across Anogenital Cancer Sites.** Joseph J. Carter, Margaret M. Madeline, Katherine Sheri, Stephen M. Schwartz, Kara L. Cushing-Haugen, Gregory C. Wipf, Peggy Porter, Janet R. Daling, James K. McDougall, and Denise A. Galloway.
-
- Experimental Therapeutics**
- 1941 Localization of a Human Reduced Folate Carrier Protein in the Mitochondria as Well as the Cell Membrane of Leukemia Cells.** Tanya M. Trippett, Shawna Garcia, Katta Manova, Roslyn Misra, Leona Cohen-Gould, Wayne Flintoff, and Roger R. Bertino.
- 1948 Vascular Attack by 5,6-Dimethylbenzene-4-acetic Acid Combined with B7.1 (CD28)-mediated Immunotherapy Overcomes Immune Resistance and Leads to the Eradication of Large Tumors and Multiple Tumor Foci.** Jagat R. Kanwar, Rupinder K. Kanwar, Sudhil Pandey, Lat-Ming Ching, and Geoffrey W. Krisnamoorthy.
- 1957 p53 Effects Both the Duration of G₂/M Arrest and the Fate of Temozolamide-treated Human Glioblastoma Cells.** Yuichi Hinze, Mitchell S. Berger, and Russell O. Peiper.
- 1964 Characterization of a Novel Topoisomerase 1 Mutation from a Camptothecin-resistant Human Prostate Cancer Cell Line.** Yoshimasa Urasaki, Gary S. Laco, Philippe Poupart, Yuji Takebayashi, Glenn Kohlihaga, Christopher Goforth, Hongliang Zhang, Devasis Chatterjee, Panayoti Pantazis, and Yves Pommer.
- 1970 Targeting of Aluminiun (III) Phthalocyanine Tetrasulfide by Use of Internalizing Monoclonal Antibodies: Improved Efficacy in Photodynamic Therapy.** Maarten B. Veenstra, Gerard W. M. Visser, Marjolein Stigter, Hugo Opstelten, Gordon B. Snow, and Gino A. M. S. van Dongen.
- 1976 T-Cell Activation by Recombinant Receptors: CD28 Costimulation Is Required for Interleukin 2 Secretion and Receptor-mediated T-Cell Proliferation but Does Not Affect Receptor-mediated Target Cell Lysis.** Andreas Hombach, Dagmar Senz, Claudia Schneiders, Claudia Heuser, Dimitra Koch, Christoph Pohl, Barbara Seliger, and Hinrich Abken.
- 1983 Pharmacological and Toxicological Aspects of 4-Demethoxy-3'-aziridinyl-4'-methoxyphthalocyanine (PNU-159548): A Novel Antineoplastic Agent.** Cristina Gerom, Marina Ripamonti, Claudio Argioni, Francesco Fiorentini, Laura Capolino, Donatella Moretti, Sergio Marchini, Paola della Torre, Clara Albanece, Maria Gracia Lamparelli, Marina Ciomei, Rosaria Rossi, and Michele Caruso.
- 1991 4-Demethoxy-3'-aziridinyl-4'-methoxyphthalocyanine (PNU-159548), a Novel Anticancer Agent Active against Tumor Cell Lines with Different Resistance Mechanisms.** Sergio Marchini, Giovanna Damia, Massimo Broggini, Giulia Pennella, Marina Ripamonti, Eraldo Marsigli, and Cristina Gerom.

CONTENTS OF VOLUME 61

- 1996 Experimental Chronotherapy of Mouse Mammary Adenocarcinoma MA13/C with Docetaxel and Doxorubicin as Single Agents and in Combination.** T. G. Granda, E. Filipski, R. M. D'Attito, P. Vrignaud, A. Anjo, M. C. Bissery, and F. Lévi.
- 2002 Effects of Chemotherapy by 1,3-Bis(2-chloroethyl)-1-nitrosourea on Single-Quantum- and Triple-Quantum-filtered ²³Na and ³¹P Nuclear Magnetic Resonance of the Subcutaneously Implanted 9L Glioma.** Patrick M. Winter, Harish Poptani, and Navin Bansal.
- 2008 Response of LNCA⁺ Spheroids after Treatment with an α -Particle Emitter (²¹³Bi)-labeled Anti-Prostate-specific Membrane Antigen Antibody (J591).** Åse M. Ballangrud, Wei-Hong Yang, David E. Charlton, Michael R. McDevitt, Klaus A. Hamacher, Katherine S. Panageas, Dangsie Ma, Neil H. Bander, David A. Scheinberg, and George Souzares.
- Immunology**
- 2015 Vascular Endothelial Growth Factor Effects on Nuclear Factor- κ B Activation in Hematopoietic Progenitor Cells.** Mikiharu M. Dikay, Toshiro Oyama, Pingyan Cheng, Takamine Takahashi, Keiko Takahashi, Tanya Sepetavec, Byard Edwards, Yasushi Adachi, Sorenna Nadaf, Thomas Daniel, Donny I. Gabrilovich, and David P. Carboni.
- 2022 Stimulation of β 1 Integrin Down-Regulates ICAM-1 Expression and ICAM-1-dependent Adhesion of Lung Cancer Cells through Focal Adhesion Kinase.** Manabu Yasuda, Yoshina Tanaka, Masahito Tamura, Koichi Fujii, Masakazu Sugaya, Tomoko So, Mitsuhiro Takeyama, and Kosei Yamamoto.
- 2031 Divergent Effects of 4-IBB Antibodies on Antitumor Immunity and on Tumor-reactive T-Cell Generation.** Julian A. Kim, Bruce J. Averbook, Kathleen Chambers, Kevin Rothchild, Jorgen Kjaergaard, Robert Papay, and Suo Shi.
- 2038 Molecular Basis of T Cell-mediated Recognition of Pancreatic Cancer Cells.** Masaki Ito, Shigeki Shiojiri, Naotake Tsuda, Mika Ochi, Naonae Harashima, Norio Saito, and Kyoko Itoh.
- 2047 Melanoma Patients Respond to a Cytotoxic T-Lymphocyte-defined Self-peptide with Diverse and Nonoverlapping T-Cell Receptor Repertoires.** Pierre-Yves Dietrich, Paul R. Walker, Anne-Lise Quigley, Gelle Perrin, Valerie Dutout, Danièle Liénard, Philippe Guillaume, Jean-Charles Cerottini, Pedro Romero, and Daniela Valmori.
- 2055 Identification of a Tissue-specific Putative Transcription Factor in Breast Tissue by Serological Screening of a Breast Cancer Library.** Dirk Jager, Elisabeth Stockert, Ali O. Gure, Matthew J. Scanlan, Julia Karbach, Elke Jager, Alexander Knuth, Lloyd J. Old, and Yael-Tseng Chen.
- 2062 T Cell-dependent Antitumor Immunity Mediated by Secondary Lymphoid Tissue Chemokeyne: Augmentation of Dendritic Cell-based Immunotherapy.** Christopher J. Kirk, Dennis Hartigan-O'Connor, Brian J. Nickoloff, Jeffrey S. Chamberlain, Martin Giedlin, Lee Aukerman, and James J. Mulé.
- Molecular Biology and Genetics**
- 2071 Regulation of Growth and Tumorigenicity of Breast Cancer Cells by the Low Molecular Weight GTPase Rad and Nm23.** Yu-Hua Tseng, David Vicent, Junshan Zhu, Yuan Lin, Adewale Adeyinka, Julie S. Moyers, Peter H. Watson, and C. Ronald Kahn.
- 2080 Oct-2 and Bob-1 Deficiency in Hodgkin and Reed Sternberg Cells.** Daniel Re, Markus Müschen, Tahamtan Ahmadi, Claudia Wickenhauser, Andrea Strätschek-Jox, Udo Hollick, Volker Diehl, and Jürgen Wolf.
- 2085 Activation of β -Catenin during Hepatocarcinogenesis in Transgenic Mouse Models: Relationship to Phenotype and Tumor Grade.** Diego F. Calvisi, Valentina M. Factor, Roberto Loti, and Simon S. Thorgersson.
- 2092 Increased Loss of Chromosome 9p21 but not p16 Inactivation in Primary Non-Small Cell Lung Cancer from Smokers.** Monterreal Sanchez-Cespedes, P. Anthony Decker, Kara M. Doffek, Marie Esteller, William H. Westra, Enas A. Alawi, James G. Herman, Michael J. Demure, David Sidransky, and Steven A. Ahmed.
- 2097 Stabilized β -Catenin Immortalizes Colonic Epithelial Cells.** Rebecca A. Wagenaar, Howard C. Crawford, and Lynn M. Matrisian.
- 2105 PTEN-induced G1 Growth Arrest Requires p27kip1.** Alexander R. Gottschalk, Daniel Basila, Michelle Wong, Nicholas M. Dean, Christina H. Brands, David Stokoe, and Daphne A. Haas-Kogan.
- 2112 SMAD3 Represses Androgen Receptor-mediated Transcription.** Steven A. Hayes, Mark Zarnegar, Manju Sharma, Fayan Yang, Donna M. Peehl, Peter ten Dijke, and Zijie Sun.
- 2119 Mapping the Sites of Putative Tumor Suppressor Genes at 6p25 and 4p21.3 in Cervical Carcinoma: Occurrence of Allelic Deletions in Precancerous Lesions.** Anupam Chatterjee, Hugo Aruisi-Pulido, Sanjay Koul, Nestor Beleno, Ana Perilla, Hector Posso, Mabesh Manusukhani, and Gundavalli V. V. S. Murty.
- 2124 Microsatellite Instability Occurs in Distinct Subtypes of Pediatric but not Adult Central Nervous System Tumors.** Michelle Alonso, Richard Hensel, Minni Kim, Kara Pownitch, Tammy Sung, Preethi Pathar, Douglas C. Miller, and Elizabeth W. Newcomb.
- Review**
- 2343 The BCR Gene and Philadelphia Chromosome-positive Leukemogenesis.** Eunice Laurent, Moshe Talpaz, Hagop Kantarjian, and Karelle Kurzrock.
- Advances in Brief**
- 2356 Human Papillomavirus Type 16 E7 Oncoprotein-induced Abnormal Centrosome Synthesis Is an Early Event in the Evolving Malignant Phenotype.** Stefan Duensing, Anette Duensing, Christopher P. Crum, and Karl Munger.
- 2361 Invasion Activating Caveolin-1 Mutation in Human Scirrhous Breast Cancers.** Kazuhiko Hayashi, Satoru Matsuda, Kazuya Machida, Tatsuyoshi Yamamoto, Yoshihide Fukuda, Yuiji Nimura, Tetsuo Hayakawa, and Michinari Hamaguchi.
- 2129 Genome-wide Analysis of Gene Expression in Human Hepatocellular Carcinoma Using cDNA Microarray: Identification of Genes Involved in Viral Carcinogenesis and Tumor Progression.** Hiroshi Okabe, Seiji Satoh, Tatsushi Kato, Osamu Kitahara, Renpei Yanagawa, Yoshiro Yamakita, Tatsuhiko Tsunoda, Yoichi Furukawa, and Yusuke Nakamura.
- Tumor Biology**
- 2138 Expression of Vesicular Monoamine Transporters, Synaptosomal-associated Protein 25 and Syntaxin-1: A Signature of Human Small Cell Lung Carcinoma.** Lothar Graff, Florian Castro, Markus Bauer, Heinz Höfler, and Manfred Gratzl.
- 2145 Angiopoietin-2 is Related to Tumor Angiogenesis in Gastric Carcinoma: Possible in Vivo Regulation via Induction of Protease.** Toshiyuki Eishi, Hiroshi Inoue, Shunji Tanaka, Graham P. Barnard, Seigo Kitano, and Masaki Mori.
- 2154 HuR, a RNA Stability Factor, Is Expressed in Malignant Brain Tumors and Binds to Adenine- and Uridine-rich Elements Within the 3' Untranslated Regions of Cytokine and Angiogenic Factor mRNAs.** L. Burt Nabors, G. Yancey Gillespie, Luanthai Harkins, and Peter H. King.
- 2162 The Gene for the Axonal Cell Adhesion Molecule FAI-1 Is Amplified and Overexpressed in Malignant Gliomas.** David S. Rickman, Rachana Tyagi, Xiao-Ning Zhu, Mirrosav P. Bobeck, Susan Song, Mila Blavars, David E. Mistek, Mark A. Israel, David M. Kunert, Donald A. Ross, Phillip E. Kish, and Samir M. Hanash.
- 2169 Expression of erbB-4/HER-4 Growth Factor Receptor Isoforms in Ovarian Cancer.** Lynn M. R. Giltnar, Kenneth G. MacLeod, Alison McCaig, William J. Gullick, John F. Smyth, and Simon P. Langdon.
- 2177 Establishment of a Novel Species- and Tissue-specific Metastasis Model of Human Prostate Cancer in Humanized Nonobese Diabetic/Severe Combined Immunodeficient Mice Engrafted with Human Adult Lung and Bone.** Hiroyuki Yonou, Tomoyuki Yokose, Tomoyuki Kamijo, Naoki Kanonuma, Takahiro Hasebe, Kanji Nagai, Tadashi Hatano, Yoshihide Ogawa, and Atsushi Ohchiai.
- 2183 Up-regulation of Bcl-2 in Microvascular Endothelial Cell Enhances Intratumoral Angiogenesis and Accelerates Tumor Growth.** Jacques E. Nori, Joan Christensen, Juanqiao Liu, Martin Peters, David J. Mooney, Robert M. Strieber, and Peter J. Polverini.
- 2189 High Cancer Cell Death in Syngeneic Tumors Developed in Host Mice for the Stromelysin-3 Matrix Metalloproteinase.** Anne Boulay, Régis Masson, Marie-Pierre Chennard, Mostapha El Fahimi, Lydia Cassard, Jean-Pierre Bellonci, Catherine Sautes-Fridman, Paul Bassel, and Christine Rio.
- 2194 Role of Phosphatidylinositol 3-Kinase-Akt Pathway in Nucleophosphin/Anaplastic Lymphoma Kinase-mediated Lymphomagenesis.** Arut Sipioneck, Margaret Nieborowska-Skorska, Grażyna Hoser, Andrea Moroni, Mirela Majewski, Liqian Xue, Stephan W. Morris, Marusia A. Wasik, and Tomasz Skorski.
- 2200 Aberrant Activation of c-kit Protects Colon Carcinoma Cells against Apoptosis and Enhances Their Invasive Potential.** GrazIELLA Bellone, Anna Carbó, Nidia Sibona, Omrella Bosé, Daniela Tibaldi, Carlo Smirle, Tiziana Martino, Claudia Gramigni, Michele Camandona, Giorgio Emanuelli, and Ulrich Rodeck.
- 2207 Radiation Therapy to a Primary Tumor Accelerates Metastatic Growth in Mice.** Kevin Camphausen, Marsha A. Moses, Wolf-Dietrich Beucken, Michael K. Khan, Judah Folkman, and Michael S. O'Reilly.
- 2212 Centrosome Defects Can Account for Cellular and Genetic Changes That Characterize Prostate Cancer Progression.** German A. Pitman, Aruna Purohit, Janice Wallace, Raji Malhotra, Lance Liotta, and Stephen J. Dosey.
- 2220 Altered Expression of Apo1/c-rel in Germ Cell Tumors and Overexpression in NTZ Cells Confers Resistance to Bleomycin and Radiation.** Kent A. Robertson, Heather A. Bullock, Yi Xu, Renee Trut, Erika Zimmerman, Thomas M. Ulbricht, Richard S. Foster, Lawrence H. Einhorn, and Mark R. Kelley.
- 2226 Clinicopathological Significance of Core 2 fucose-N-Acetylglucosaminyltransferase Messenger RNA Expressed in the Pulmonary Adenocarcinoma Determined by In Situ Hybridization.** Emi Machida, Jun Nakayama, Jun Amano, and Minoru Fukada.
- 2232 Inhibition of Angiogenesis and Tumor Growth by SCH221153, a Dual α v β 3 and α v β 5 Integrin Receptor Antagonist.** C. Chandra Kumar, Michael Markowski, Zizhang Yin, Elena Tangheri, Bo Yaremcio, Terry Nechuta, Judy Varner, Ming Liu, Elizabeth M. Smith, Bernice Neustadt, Marco Presta, and Lydia Armstrong.
- 2239 A Proline-Large T Antigen Transgenic Mouse Line Develops Prostate Adenocarcinoma and Neuroendocrine Carcinoma with Metastatic Potential.** Naoya Matsunari, Taro Z. Thomas, Pierre Chaurand, Tom Case, Manik Paul, Susan Kasper, Richard M. Caprioli, Takuji Tsukamoto, Scott B. Shapell, and Robert J. Matsuk.
- March 15, Number 6**
- 2365 Stimulation of Mammary Tumorigenesis by Systemic Tissue Inhibitor of Matrix Metalloproteinase-4 Gene Delivery.** Yangfu Jiang, Mingsheng Wang, Mahmud Y. Çeliker, Yiliang E. Liu, Qing Xiang Amy Sang, Itzhak D. Goldberg, and Y. Eric Shi.
- 2371 Patterns of CDKN2A Gene Loss in Sequential Oral Epithelial Dysplasias and Carcinomas.** S. Ali Shahnavaz, Grace Bradley, Joseph A. Reggez, Nalin Thakker, Luzhang Gao, David Hogg, and Richard C. Jordan.
- 2376 A Novel Alternative Approach for Prediction of Radiation Response of Squamous Cell Carcinoma of Head and Neck.** Ebah Hanna, Dennis C. Shrieve, Venecular Ratanatharathorn, Xueqing Xia, Randy Breau, James Suen, and Shulin Li.
- 2381 A Case-Control Study of Microsomal Epoxide Hydrolase, Smoking, Meat Consumption, Glutathione S-Transferase M3, and Risk of Colorectal Adenomas.** Victoria Cortessis, Kimberly Siegmund, Qiangxiu Chen, Niannian Zhou, Anh Diep, Harold Frankl, Eric Lee, Qin-shi Zhu, Robert Haile, and Daniel Levy.
- 2250 Tumor Necrosis Factor α and Interleukin 1 Secreted by Malignant Breast Epithelial Cells Inhibit Adipocyte Differentiation by Selectively Down-regulating CCAAT/Enhancer Binding Protein α and Peroxisome Proliferator-activated Receptor γ : Mechanism of Desmoplastic Reaction.** Li Meng, Jianfeng Zhou, Hirohisa Sasano, Takashi Suzuki, Khaled M. Zeitouni, and Serdar Bulut.
- 2256 The Expression of Vascular Endothelial Growth Factor Correlates with Mutant p53 and Poor Prognosis in Human Breast Cancer.** Barbro K. Lindholm, Thomas Lindahl, Lars Holmberg, Sigrid Klar, Johan Lemmerstrand, Roger Henriksson, and Jonas Berg.
- 2261 Impaired α -Interferon Signaling in Transitional Cell Carcinoma: Lack of p48 Expression in 5637 Cells.** Surenra F. Matlin, Raymond R. Rackley, Prakash C. Sabdulkhan, Myung S. Kim, Andrew C. Novick, and Sudip K. Bandyopadhyay.
- 2267 Induction of ETS-1 and ETS-2 Transcription Factors Is Required for Thyroid Cell Transformation.** Filomena de Nigris, Tiziana Maria Berger, Maria Vittoria Barone, Massimo Santoro, Giuseppe Viglietto, Pasquale Verde, and Alfredo Fusco.
- 2276 Regulation of MMP-1 and MMP-2 Production through CD147/Extracellular Matrix Metalloproteinase Inducer Interactions.** Jianxin Sun and Martin E. Hemler.
- 2282 Parathyroid Hormone-related Protein Induces Interleukin 8 Production by Prostate Cancer Cells via a Novel Intracellular Mechanism Not Mediated by its Classical Nuclear Localization Sequence.** Asefa Guralp, Douglas W. Burton, Robert Terkelbaum, and Leonard J. Deftos.
- 2289 The Farnesytransferase Inhibitor L744832 Reduces Hypoxia in Tumors Expressing Activated HIF-1.** Elizabeth Cohen-Jonathan, Sydney M. Evans, Cameron J. Koch, Ruth J. Muschel, William G. McKenna, JunMin Wu, and Eric J. Bernhard.
- 2294 Cysteamine Induces Redifferentiation of Primary Tumors and Confers Protection against Secondary Tumor Growth in a Melanoma Murine Model.** Aicha Demidem, Daniel Morvan, Janine Papon, Monique De Latour, and Jean Claude Madelmont.
- 2301 EphA2 Overexpression Causes Tumorigenesis of Mammary Epithelial Cells.** Daniel P. Zelinski, Nicole Dodge Zantek, Jane C. Stewart, Armando R. Ibarra, and Michael S. Kinch.
- 2307 Distribution and Functional Consequences of Nucleotide Polymorphisms in the 3'-Untranslated Region of the Human *Sep15* Gene.** Ya Jun Hu, Konstantin V. Korotkov, Rajeshwari Mehta, Dolph L. Hatfield, Charles N. Rotter, Amy Luke, T. Elaine Prewitt, Richard S. Cooper, Wendy Stock, Everett E. Vokes, M. Eileen Detter, Vadim N. Gladyshev, and Alan M. Diamond.
- 2311 Up- and Down-Regulation of Granulocyte/Macrophage-Colony Stimulating Factor Activity in Murine Skin Increase Susceptibility to Skin Carcinogenesis by Independent Mechanisms.** Amrit Mann, Kai Breuhahn, Peter Schirmacher, Arnd Willhelmi, Carsten Beyer, Andrea Rosenau, Suat Ozbek, Stefan Rose-John, and Manfred Blessing.
- 2320 Elevation of Breast Carcinoma Nm23-H1 Metastasis Suppressor Gene Expression and Reduced Motility by DNA Methylation Inhibition.** Melanie T. Harsongh, Susan E. Clark, Michael Mair, Abel G. Elkahloun, Dennis Sogni, C. Kent Osborne, Gary Clark, and Patricia S. Steeg.
- 2328 Malignant Breast Epithelial Cells Stimulate Aromatase Expression via Pro-moter II in Human Adipose Fibroblasts: An Epithelial-Stromal Interaction in Breast Tumors Mediated by CCAAT/Enhancer Binding Protein β .** Jianfeng Zhou, Bilgin Gurates, Sijan Yang, Siby Sebastian, and Serdar E. Bulut.
- Letter to the Editor**
- 2335 Correspondence re: O. J. Arola et al., Acute Doxorubicin Cardiotoxicity Involves Cardiomyocyte Apoptosis.** Cancer Res., 60: 1789-1792, 2000. Holger W. Auer, Christoph Timchow, Werner Linkesch, Gabriele Halbwachs-Baumann, and Heinz Sill.
- 2337 Announcements**
- 2001 Annual Meeting
Future Scientific Meetings of the American Association for Cancer Research
Late-breaking Research Session at the Annual Meeting
Workshop on Pathobiology Cancer
Workshop on Molecular Biology in Clinical Oncology
Workshop on Methods in Clinical Cancer Research
AACR Special Conferences in Cancer Research
Calendar of Events
- 2339 Erratum**
H. Spiguel et al., Cancer Res., 60: 6832-6835, 2000.
- 2340 Author Index**

CONTENTS OF VOLUME 61

- 2399 Promoter Methylation Regulates *Helicobacter pylori*-stimulated Cyclooxygenase-2 Expression in Gastric Epithelial Cells.** Mahmood Akhtar, Yulan Cheng, Mina Magni, Hassan Ashtikarab, Duane T. Smoot, Stephen J. Melitz, and Keith T. Wilson.
- 2404 Vascular Endothelial Growth Factor (VEGF)-C Differentially Affects Tumor Vasculature Function and Lymphocyte Recruitment: Role of VEGF-Receptor 2 and Host VEGFA.** Ananth Kadambi, Carla Mouta Carreira, Chae-uk Yun, Timothy P. Padra, Dennis E. J. G. Dolmans, Peter Carmeliet, Dai Fukumura, and Rakesh K. Jain.
- 2409 *BMI-1* Gene Amplification and Overexpression in Hematological Malignancies Occur Mainly in Mantle Cell Lymphomas.** Silvia Béa, Frédéric Tort, Magda Pinyol, Xavier Puig, Luis Hernández, Silvia Hernández, Pedro L. Fernández, Maarten Dierssen, Dolores Colomer, and Elisa Campo.
- 2413 Inhibition of Vascular Endothelial Growth Factor Receptor Signaling Leads to Reversal of Tumor Resistance to Radiotherapy.** Ling Geng, Edwin Domelly, Gerald McMahon, P. Charles Lin, Elaine Rivera, Halina Oshimka, and Dennis E. Hallahan.
- 2419 Overexpression of HER-2 in Ovarian Carcinomas.** Inggerd Hellström, Gary Goodman, Janice Pullman, Yi Yang, and Karl Erik Hellström.
- 2424 Ligands for Peroxisome Proliferator-activated Receptors α and γ Inhibit Chemically Induced Colitis and Formation of Aberrant Crypt Foci in Rats.** Takao Tanaka, Hiroyuki Kohno, Shin-ichi Yoshitani, Shigeaki Takashima, Ataru Okumura, Akira Murakami, and Masashi Hosokawa.
- 2429 Hypoxia Activates a Platelet-derived Growth Factor Receptor/Phosphatidylinositol 3-Kinase/Akt Pathway That Results in Glycogen Synthase Kinase-3 Inactivation.** Fanice Y. Chen, Nathalie M. Marzou, Jonathan A. Cooper, and Amato J. Giaccia.
- 2434 RGD-Tachypsin Inhibits Tumor Growth.** Yixin Chen, Xueming Xu, Shuigen Hong, Jingfu Chen, Ningfei Liu, Charles B. Underhill, Karen Creswell, and Luong T. Zhang.
- Regular Articles**
- Biochemistry and Biophysics**
- 2439 Tyrosine Kinase-dependent, Phosphatidylinositol 3'-Kinase, and Mitogen-activated Protein Kinase-independent Signaling Pathways Prevent Long Adenocarcinoma Cells from Anosia.** Lin Wei, Yu Yang, and Qiang Yu.
- 2445 *cis*-Polyunsaturated Fatty Acids Stimulate $\beta 1$ Integrin-mediated Adhesion of Human Breast Carcinoma Cells to Type IV Collagen by Activating Protein Kinases C- ϵ and - μ .** Rónia Palamarini, Margaret D. George, Steven K. Akyiama, Frances M. Wölber, Kenneth Olden, and John D. Roberts.
- 2453 Maturation of Erythroid Cells and Erythroblastemia Developments Are Affected by the Kinase Activity of Lyn.** Peta A. Tilbrook, Gena A. Palmer, Thomas Bittner, David J. McCarthy, Michael J. Wright, Mohinder K. Saria, Diana Linnekin, Vanessa S. Cull, James H. Williams, Evan Ingleby, Jens Schneider-Mergener, Gerald Krystal, and S. Peter Klinck.
- 2459 Induction of the Mitochondrial Permeability Transition Mediates the Killing of HeLa Cells by Staurosporine.** Marco Tafani, Dmitri A. Minchenko, Ada Sermoni, and John L. Farber.
- 2467 Mechanism of Specific Nuclear Transport of Adriamycin: The Mode of Nuclear Translocation of Adriamycin-Protoplastone Complex.** Ken-ichi Kiyomiya, Saburo Matsuo, and Masaru Kurebe.
- Carcinogenesis**
- 2472 Modulation of Biomarkers by Chemos preventive Agents in Smoke-exposed Rats.** Alberto Izzotti, Roumen M. Balanovic, Francesco D'Agostino, Carlo Benelli, Steven R. Myers, Clinton J. Grubbs, Ronald A. Lubet, Gary J. Kelloff, and Silvio De Flora.
- 2480 Association between DNA Repair-deficiency and High Level of p53 Mutations in Melanoma of Xeroderma Pigmentosum.** Alain Spatz, Giuseppina Giglia-Mari, Simone Benhamou, and Alain Sarasin.
- 2487 Dimethylbenzanthracene Carcinogenesis in *Gadd45a*-null Mice Is Associated with Decreased DNA Repair and Increased Mutation Frequency.** M. Christine Hollander, Oleg Kovalevsky, Jesus M. Salvador, Kate E. Kim, Andrew D. Patterson, Diana C. Haines, and John F. Forman Jr.
- Clinical Investigations**
- 2492 Identification of Gene Expression Patterns in Superficial and Invasive Human Bladder Cancer.** Thomas Thykjaer, Christopher Workman, Mogens Kroghboe, Karin Dennerding, Hans Wolf, Lars Dyrskjær Andersen, Casper Møller Frederiksen, Steen Knudsen, and Torben F. Ørntoft.
- 2500 A Risk-Stratification Model of Non-Small Cell Lung Cancers Using Cyclin E1, Ki-67, and ras p21: Different Roles of G1 Cytins in Cell Proliferation and Prognosis.** Hirotoshi Dosaka-Akita, Fumihiro Hommura, Takeyuki Mishina, Shigeaki Ogura, Michio Shimizu, Hiroyuki Katoh, and Yoshikazu Kawakami.
- 2505 Influence of TP53 Gene Alterations and c-erbB-2 Expression on the Response to Treatment with Doxorubicin in Locally Advanced Breast Cancer.** Stephanie Geisler, Peer Eystein Løning, Turid Aas, Hilde Johnsen, Øystein Fluge, Dagny Faksvig Haugen, John Richard Lillehaug, Lars Andreas Akslen, and Anne-Lise Borresen-Dale.
- 2513 Tumor Microrecurrence Evaluated by Dynamic Magnetic Resonance Imaging Predicts Therapy Outcome for Primary Rectal Carcinoma.** Alexander F. DeVries, Jürgen Griebel, Christian Kremer, Werner Jädmayer, Thomas Gnetting, Alfons Kreczy, Dietmar Öfler, Karl-Peter Pfeiffer, Gunnar Brix, and Peter Lukas.
- 2517 Molecular Quantification of Response to Therapy and Remission Status in *TEL-AML1*-Positive Childhood ALL by Real-Time Reverse Transcriptase Polymerase Chain Reaction.** Kathrin Beier, Karl-Anton Kreuzer, Ulrich Lass, Tillmann Taube, Dirk Buchwald, Cornelia Eckert, Gabriele Körner, Christian-A Schmidt, and Günter Henzle.
- 2523 Detection of Blood-borne Cells in Colorectal Cancer Patients by Nested Reverse Transcription-Polymerase Chain Reaction for Carcinoembryonic Antigen Messenger RNA: Longitudinal Analyses and Demonstration of Its Potential Importance as an Adjunct to Multiple Serum Markers.** Fiorella Guadagni, Judith Kantor, Simona Aloe, Maria Daniela Carone, Antonella Spila, Roberta D'Alessandro, Maria Rosaria Abbolito, Maurizio Cosimelli, Franco Graziano, Fabio Carboni, Sandro Carlini, Pasquale Perri, Francesco Sciarretta, John W. Greiner, Syed V. S. Kashmiri, Seth M. Steinberg, Mario Roselli, and Jeffrey Schlom.
- 2533 Vascular Endothelial Growth Factor and Basic Fibroblast Growth Factor Urine Levels as Predictors of Outcome in Hormone-refractory Prostate Cancer Patients: A Cancer and Leukemia Group B Study.** Robert A. Bok, Susan Halabi, David T. Fei, Carlos R. Rodriguez, Daniel F. Hayes, Nicholas J. Vogelzang, Philip Kantoff, Marc A. Shuman, and Eric J. Small.
- 2537 Decreased Expression of Estrogen Receptor β Protein in Proliferative Pre-invasive Mammary Tumors.** Pascal Roger, Majida Esslami, Sahla, Sari Mukela, Jan Åke Gustafsson, Pierre Baldet, and Henri Rochebort.
- Epidemiology and Prevention**
- 2542 Transplacental Chemical Exposure and Risk of Infant Leukemia with *MLL* Gene Fusion.** Freda A. Alexander, Sherry L. Pritchard, Andrea Biandoli, Silvia Brandolini, Maria-Elena Cabrala, Li C. Chan, Zhu Chen, Giuseppe Cimino, Jose-Carlos Cordeiro, Long-Jun Gu, Hanay Husein, Etschi Ishii, Azza M. Kamel, Silvia Labra, Issis Q. Magallanes, Shizuka Mizutani, Eleni Petridou, Maria Pombeiro de Oliveira, Patrick Yuen, Joseph L. Wiemels, and Mel F. Greaves.
- 2547 Reciprocal Expression of ER α and ER β Is Associated with Estrogen-mediated Modulation of Intestinal Tumorigenesis.** Michael J. Weyant, Adelaide M. Carothers, Najia N. Mahmood, H. Leon Bradlow, Helen Remotti, Robyn T. Bilinski, and Monica M. Bertagnolli.
- Experimental Therapeutics**
- 2552 Peptide Transport by the Multidrug Resistance Protein MRPI.** Mariska C. de Jong, Jerry W. Slotboom, George L. Scheffer, Ansouk B. Schoeters, Wouter C. Puijk, Remco Dinkelberg, Marcel Kouf, Henk J. Brosterman, Rob H. Meloen, and Rik J. Schepers.
- 2558 Cell-Surface-Directed Interaction of Anthracyclines Leads to Cytotoxicity and Nuclear Factor κ B Activation but not Apoptosis Signaling.** Nicolas Maeser, Thomas R. Tritton, Guy Laurent, and Jean-Pierre Jaffrézou.
- 2562 Adenovirus-mediated Transfer of Inducible Caspase: A Novel "Death Switch" Gene Therapeutic Approach to Prostate Cancer.** Shahrokh F. Sharati, Smiti Desai, Weiran Song, Tahar Khan, Julie Zhao, Cuong Nguyen, Barbara A. Foster, Norman Greenberg, David M. Spencer, and Kevin M. Stawn.
- 2572 Therapeutic Effect of a Soluble Receptor Activator of Nuclear Factor κ B-IgG Fc Fusion Protein in Suppressing Bone Resorption and Hypercalcemia in a Model of Humoral Hypercalcemia of Malignancy.** Bahattin O. Oyajobi, Dirk M. Anderson, Kathryn Trahanedes, Paul J. Williams, Toshiyuki Yoneda, and Gregory R. Mundy.
- 2579 Selective Sensitization of Retinoblastoma Protein-deficient Sarcoma Cells to Doxorubicin by Flavopiridol-mediated Inhibition of Cyclo-dependent Kinase 2 Kinase Activity.** Weiwei Li, Jiangang Guo, and Joseph R. Bertino.
- 2583 The Cyclin-dependent Kinase Inhibitor (CDKI) Flavopiridol Disrupts Phorbol-12-Myristate-13-Acetate-induced Differentiation CDKI Expression while Inhibiting the Cyclin Myelin Leukemia Cells.** Lorraine Cattell, Zhihang Wang, Roy H. Becker, Srinath P. Chellappan, Gina Fusaro, Karen G. Hirsch, Heidi M. Sankala, Paul Dent, and Steven Grant.
- 2592 Liposome-encapsulated Doxorubicin Targeted to CD44: A Strategy to Kill CD44-overexpressing Tumor Cells.** Rom E. Eliaz and Francis C. Szoka, Jr.
- 2602 Bisphosphonate Treatment Inhibits the Growth of Prostate Cancer Cells.** Margaret V. Lee, Eva M. Fong, Frederick R. Singer, and R. Sean Guenther.
- 2609 Growth Suppression of the Hepatocellular Carcinoma Cell Line Hepa-6 by an Activatable Interferon Regulatory Factor-1 in Mice.** Andrea Kröger, Dörte Ortmann, Tim U. Krothe, Leonhardt Möhr, Hubert E. Blum, Hansjörg Hauser, and Michael Gesseler.
- Immunology**
- 2618 Enhancement of Tumor Lysate- and Peptide-pulsed Dendritic Cell-based Vaccines by the Addition of Foreign Helper Protein.** Koichi Shimizu, Elaine K. Thomas, Martin Giedlin, and James J. Malley.
- 2625 Immunization with an Antigen Identified by Cytokine Tumor Vaccine-assisted SEREX (CAS) Suppressed Growth of the Rat 9L Glioma *In Vivo*.** Hideki Okada, Jason Attamaccia, Katinka M. Giezeman-Smith, Cynthia Brissette-Storkus, Wendy K. Fellows, Andrea Gambotto, Ian F. Pollack, Kay Pogue-Geile, Michael T. Lotze, Michael E. Buzik, and William H. Chambers.
- Molecular Biology and Genetics**
- 2632 Single Nucleotide Instability without Microsatellite Instability in Rat Mammary Carcinomas.** Naoko Watanabe, Eriko Okochi, Yoshikazu Hirayama, Yoshihiko Shimada, Kazuyoshi Yangahara, Michihito C. Yoshida, Satoru Takahashi, Masataka Mochizuki, Takashi Sugimura, Minako Nagao, and Toshikazu Ushijima.
- 2641 The Kapo's Sarcoma-associated Herpesvirus G Protein-coupled Receptor Positively Regulates the Cytosolic Survival through the Activation of Akt/Protein Kinase B.** Silvia Montaner, Akrit Soodt, Salvatore Puccio, Enrique A. Mesi, and J. Silvio Gutkind.
- 2649 Severe Combined Immunodeficient Cells Expressing Mutant hRAD54 Exhibit a Marked Double-Strand Break Repair and Error-prone Chromosome Repair Defect.** Janice M. Pluth, Laura M. Fried, and Cordula U. Kirchgeserer.
- 2656 Antiproliferative and Antiapoptotic Effects of cRel May Occur within the Same Cells via the Up-regulation of Manganese Superoxide Dismutase.** David Bernard, Brigitte Quatamians, Agnes Begue, Bernard Vanbunder, and Corinne Abbadié.
- 2665 tH11.14/1g23g24 Generates an *MLL-Human Gephyrin* Fusion Gene along with a *de novo* Truncated *MLL* in Acute Myeloblastic Leukemia.** Naruo Kusuda, Fumiaki Kimura, Takaaki Matsumura, Takuwa Yamashita, Yukitsugu Nakamura, Naoki Wakimoto, Takashi Ikeda, Ken Sato, and Kazuo Motoyoshi.
- 2670 K-Ras-mediated Increase in Cyclooxygenase 2 mRNA Stabilization Involves Activation of the Protein Kinase B.** Hongmiao Sheng, Jinyi Shao, and Raymond N. DuBois.
- 2676 Genetic Pathways in the Evolution of Morphologically Distinct Colorectal Neoplasms.** Masakazu Yashiro, John M. Carches, Luigi Lagli, Koji Saito, Premysl Slezák, Edgar Jaramillo, Carlos Rubio, Koschi Koizumi, Kosei Hirakawa, and C. Richard Boland.
- Meeting Report**
- 2678 The Twentieth International Symposium of the Sapporo Cancer Seminar Foundation: Gene Environment Interaction and Cancer Prevention.** Enrico Mibich, Helmut Bartsch, and Hiroshi Kobayashi.
- 2693 Announcements**
- 2001 Annual Meeting
Future Annual Meetings of the American Association for Cancer Research
Late-breaking Research Session at the Annual Meeting
Workshop on Pathobiology of Cancer
Workshop on Molecular Biology in Clinical Oncology
Workshop on Methods in Clinical Cancer Research
AACR Special Conferences in Cancer Research
Calendar of Events
- 2796 Author Index**

April 1, Number 7

Advances in Brief

2799 The Association of Human Papillomavirus 16/18 Infection with Lung Cancer among Nonsmoking Taiwanese Women, Ya-Wen Cheng, Hui-Ling Chiu, Gwo-Tang Sheu, Ling-Ling Hsieh, Jung-Ta Chen, Chih-Yi Chen, Jan-Ming Su, and Huei Lee.

2804 Highly Specific Tumor Binding of a 21 β -Hydroxylated Monoclonal Antibody against Mutant FG-Cathelin Targets Its Usefulness for Localized or Radioimmunotherapy of Diffuse-Type Gastric Cancer, Reingard Senckensel-Schmidtke, Christoph Schulmacher, Karl Friedrich Becker, Thomas K. Nikula, Christof Seidl, Ingrid Becker, Matthias Mueler, Christos Apostolidis, Christoph Seidl, Roswitha Huber, Elisabeth Kremmer, Kathrin Fischer, and Markus Schwaiger.

2809 A Light, Nontoxic Interleukin 12 Protocol Inhibits HER-2/neu Mammary Carcinogenesis in BALB/c Transgenic Mice with Established Hyperplasia, Lorendza Cifaldi, Elena Quagliuolo, Emma Di Carlo, Piero Musiani, Michela Spadaro, Pier Luigi Loffredo, Stanley Wolf, Katia Boggio, Guido Forni, and Federica Cavalli.

2813 Lack of MSH2 and MSH6 Characters Endometrial but not Colon Carcinomas in Hereditary Nonpolyposis Colorectal Cancer, Pascal Schweizer, Anna-Lisa Moiso, Shannon A. Kuusmanen, Kaspar Trunner, Reetta Viernimaa, Reijo Salovaara, Johanna Aro, Ralf Büttner, Jörgen Järvinen, Päivi Peltonäki, and Minna Nyström-Lahesmaa.

2816 p14^{ARF} Silencing by Promoter Hypermethylation Mediates Abnormal Intracellular Localization of MDM2, Manel Esteller, Carlos Cadena-Carbo, Paul G. Corra, Steve J. Meltzer, Kamal S. Pohar, Neil Watkins, Gabriel Capella, Miguel Angel Peinado, Xavier Matas-Guixu, Jaime Prat, Stephen B. Baylin, and James G. Herman.

2822 Mutations in the Carcinoembryonic Antigen Gene in Colorectal Cancer Patients: Implications on Liver Metastasis, Regis Zimmer and Peter Thomas.

2827 Identification of Breast Cancer Resistant Protein/Mitoxantrone Resistance/Placenta-Specific ATP-binding Cassette Transporter as a Transporter of NB-501 and J-107088, Topoisomerase I Inhibitors with an Indolecarbazole Structure, Hideya Komatsu, Hidekito Kotani, Yoshikazu Hara, Rinako Nakagawa, Mana Matsumoto, Hiroharu Arakawa, and Susumu Nishimura.

2833 Mitogen-activated Protein Kinase Kinase 4 Metastasis Suppressor Gene Expression Is Inversely Related to Histological Pattern in Advancing Human Prostatic Cancers, Hyung L. Kim, Donald J. Vander Griend, Xinxing Yang, David A. Benson, Zita Dushanovska, Barbara A. Yoshida, Marina A. Chekunova, Yayoi Ichikawa, Mitchell H. Sokoloff, Peng Zhang, Theodore Garrison, Anning Lin, Walter M. Stadler, Tomo Ichikawa, Mark A. Rubin, and Carrie W. Rinker-Schaefer.

2838 Ultraviolet Irradiation Induces BRCA2 Protein Depletion through a p53-independent and Protein Synthesis-dependent Pathway, Shao-Chun Wang, Keshi Makino, Li-Kun Su, Annie Y. Pao, Jeong Soo Kim, and Mien-Chie Hung.

2843 Extracellularly Tumor-activated Prodrugs for the Selective Chemotherapy of Cancer: Application to Doxorubicin and Preliminary *In Vitro* and *In Vivo* Studies, André Trouet, Alexandre Passoukoff, Kim Van derpoorten, Anne-Marie Fernandez, Georges Abarca-Quiñones, Roger Baurain, Thomas J. Lobl, Cecilia Oliyai, Dan Shochat, and Vincent Dubois.

2847 CpG Island Methylation in Premalignant Stages of Gastric Carcinoma, Joon Kang, Yhong-Hee Shim, Hwsoon-Yong Jung, Woo Ho Kim, Jae Y. Ro, and Mun-Gyu Rhee.

2852 Reduced 10-hydroxylase Activity in Human Prostate Cancer Cells Correlates with Decreased Susceptibility to 25-Hydroxyvitamin D₃-induced Growth Inhibition, Ju-Yu Hsu, David Feldman, John E. McNeal, and Donna M. Peehl.

2857 Progression and Enhancement of Metastatic Potential after Exposure of Tumor Cells to Chemotherapeutic Agents, Joseph E. De Lucco, Beverly R. K. Wuertz, J. Charles Manivel, and Leo T. Fuerth.

2862 A Unique Pathway in the Homing of Murine Multiple Myeloma Cells: CD44⁺ Mediates Binding to Bone Marrow Endothelium, Kewal Asosingh, Ursula Günther, Hendrik De Raeve, Ivan Van Riet, Ben Van Camp, and Karin Vanderkerken.

2866 Norpaphenine-induced Migration of SW 480 Colon Carcinoma Cells Is Inhibited by β -Blockers, Kai Masur, Bernd Niggemann, Kurt S. Zanker, and Frank Entschladen.

2870 Cloning and Characterization of *CLLD8*, *CLLD7*, and *CLLD6*, Novel Candidate Genes for Leukemogenesis at Chromosome 13q14, a Region Commonly Involved in B-Cell Chronic Lymphocytic Leukemia, Hideaki Matsubuchi, Hidenori Fuji, George Calin, Hansjörg Alder, Massimo Negri, Laura Rassenti, Thomas J. Kipps, Florentina Buttrich, and Carlo M. Croce.

Regular Articles

Biochemistry and Biophysics

2878 Caspase-3 Activation by Lysosomal Enzymes in Cytochrome c-independent Apoptosis in Myelodysplastic Syndrome-derived Cell Line P39, Terutoshi Hishta, Saeko Tada-Okiwa, Kaoru Tohyama, Yasuo Miura, Toshio Nishizuka, Yumi Tohyama, Yataro Yoshida, Takashi Uchiyama, and Shouko Kawashita.

2885 A Cyclin D1/cdk4-dependent Kinase 4 Binding Site within the C Domain of the Retinoblastoma Protein, Weijun Pan, Sarah Cox, Ronald H. Hoesch, and Robert H. Graefstrom.

Carcinogenesis

2892 Androgen Receptor Stabilization in Recurrent Prostate Cancer Is Associated with Hypersensitivity to Low Androgen, Christopher W. Gregory, Raymond T. Johnson, Jr., Jamie L. Mohler, Frank S. French, and Elizabeth M. Wilson.

2899 Increased β -Catenin Expression and Nuclear Translocation Accompany Cellular Hyperproliferation *In Vivo*, Joseph H. Sellin, Shahid Umair, Jianguo Xiao, and Andrew P. Morris.

Clinical Investigations

2907 Tumor Vascularity: A Histological Measure of Angiogenesis and Hypoxia, Catherine M. L. West, Rachel A. Cooper, Julie A. Lancaster, Deepa P. Wilks, and Mike Bromley.

- 2911** Expression of Hypoxia-inducible Factor-1 α : A Novel Predictive and Prognostic Parameter in the Radiotherapy of Oropharyngeal Cancer, Daniel M. Aebersold, Philipp Burri, Karl T. Beer, Jean Lassau, Valentin Djonov, Richard H. Greiner, and Gregg L. Semenza.
- 2917** Circumventing Tamoxifen Resistance in Breast Cancers Using Antiestrogens that Induce Unique Conformational Changes in the Estrogen Receptor, Caroline E. Connor, John D. Neutes, Gloria Broadwater, Timothy M. Willson, Marco M. Gottardo, Mark W. Dewhirst, and Donald P. McDonnell.

Endocrinology

- 2923** Characterization of the Biological Activity of γ -Glutamyl-S-methylmethionine: A Novel, Naturally Occurring Anticancer Agent from Garlic, Yan Dong, Donald Lisk, Eric Block, and Michael Ip.
- 2929** Inhibition of Platelet-derived Growth Factor Receptor Reduces Interstitial Hypertension and Increases Transcapillary Transport in Tumors, Kristian Peters, Ariane Osman, Muriel Spaepen, Elisabeth Buchbinder, Drs. Timothy K. Reid, Carl-Henrik Heldin, and Kristoffer Ruben.

Epidemiology and Prevention

- 2935** Comparative Biodistribution and Metabolism of Carbon-11-labeled N-[2-(Dimethylamino)ethyl]berine-carboxamide and DNA-intercalating Analogue Safingol, Omaha Gail Rowlinson-Busza, Sajinder K. Luthra, Eric O. Abagye, Gavin D. Brown, Franklin Brady, Ralph Myers, Swarna A. Gamble, William A. Denby, Bruce C. Baguley, and Pat M. Price.

- 2945** Inhibition of Heat Shock Protein 90 Function by Ansamycin Causes the Morphological and Functional Differentiation of Breast Cancer Cells, Pamela N. Munster, Mary Srethapakdi, Mark M. Moasser, and Neal Rosen.

- 2953** Fibro Knob Modifications Overcome Low, Heterogeneous Expression of the Cossacklesky-Adeywin Receptor That Limits Adeywin Gene Transcription and Oncolytic for Human Rhinoblastosarcoma Cells, Timothy P. Cripe, Edward J. Dunphy, Alison D. Holub, Arvind Saint, Neeti H. Vasli, Yoni Y. Mahler, Margaret H. Collins, John D. Snyder, Victor Kraskysh, David T. Curtel, Thomas J. Wickham, James DeGregori, Jeffrey M. Bergelson, and Mark A. Currier.

- 2961** Unusual Potency of BN 80915, a Novel Fluorinated E-ring Modified Campothecin, toward Human Colon Carcinoma Cells, Amette K. Larsen, Cristèle Gillett, Ginette Chyzak, Sergey V. Phan, Irina Nagubneva, Olivier Lavergne, Laurence Leusser-Thiel, and Dennis C. H. Bigg.

- 2968** A Novel Metastatic Animal Model Reflecting the Clinical Appearance of Human Neuroblastoma Growth Arrest of Orthotopic Tumors by Natural, Cytotoxic Human Immunoglobulin M Antibodies, Sylvia Engler, Christian Thiel, Kristine Förster, Kerstin David, Reinhard Brederlow, and Hartmut Jühl.

- 2974** Positron Emission Tomography-based Imaging of Transgene Expression Mediated by Replication-conditional, Oncolytic Herpes Simplex Virus Type 1 Mutants in *Vivo*, Andreas Jacobs, Jari G. Tjuvajev, Michael Dubrovsky, Timothy Aikhurst, Julian Balaton, Bradley Beattie, Ravindra Joshi, Timothy Jenkins, Sydney M. Evans, Giorgio Trinchieri, Chanda M. Schgal, Michael D. Feldman, and William M. Fife.

- 2983** Posterior Emission Tomography-based Imaging of Transgene Expression Mediated by Replication-conditional, Oncolytic Herpes Simplex Virus Type 1 Mutants in *Vivo*, Andreas Jacobs, Jari G. Tjuvajev, Michael Dubrovsky, Timothy Aikhurst, Julian Balaton, Bradley Beattie, Ravindra Joshi, Ronald F. Evans, Steven M. Larson, Ulrich Herrlinger, Peter A. Pechan, E. Antonio Chiocca, Xandra O. Breakefield, and Ronald G. Blasberg.

- 2996** Radiosensitization of Tumor-targeted Radioimmunotherapy with Prolonged Tropotropin Infusion in Human Breast Cancer Xenografts, Bruce Ng, Elissa Kramer, Leonid Liebisch, Caroline Wasserhoff, Howard Hochster, Edward Blank, Roberto Ceriani, and Philip Furmanski.

- 3002** Tamoxifen Inhibits Nerve Growth Factor-induced Proliferation of the Human Breast Cancer Cell Line MCF-7, Adriana Chairenza, Philip Lazaravici, Laurence Lempreur, Giuseppina Cantarella, Alfredo Bianchi, and Campbell Bernhardini.

- 3009** Biological Purging of Breast Cancer Cells Using an Attenuated Replication-competent Herpes Simplex Virus in Human Hematopoietic Stem Cell Transplantation, Aiguo Wu, Amitabha Majumder, Robert L. Martuza, Xia Liu, Myint Thein, Kenneth R. Mehan, and Samuel D. Rabkin.

- 3016** Gene Therapy Targeting for Hepatocellular Carcinoma: Selective and Enhanced Suicide Gene Expression Regulated by a Hypoxia-inducible Enhancer Linked to a Human α -Fetoprotein Promoter, Akio Ido, Hirofumi Uso, Akiko Moriochi, Kenji Nagata, Yukio Onaga, Masaaki Onaga, Toshiro Hori, Shizuto Hirono, Katsuhiro Hayashi, Taiki Tamaoki, and Hirohito Tsuobuchi.

- 3022** Herpes Simplex Virus 1 Thymidine Kinase Mutants Created by Semi-Random Sequence Mutagenesis Improve Prodrug-mediated Tumor Cell Killing, Margaret E. Black, Mark S. Kokoris, and Peter Sabo.

- 3027** Characterization of the Effect of Hyperthermia on Nanoparticle Extravasation from Tumor Vasculature, Garbeng Kong, Rod D. Braun, and Mark W. Dewhirst.

- 3033** 1,2-Bis(methylsulfonyl)-1-(2-chloroethyl)-2-(methylamino)-carbonyldihydrazine: A Novel Sulfonyldihydrazine Prodrug with Broad-Spectrum Antineoplastic Activity, Rick A. Finch, Krishnamurti Shyam, Philip G. Penketh, and Alan C. Sartwell.

- 3039** Magnetic Resonance Phaeochromangiography to Detect and Predict Chemotherapy Delivery in Solid Tumors, Dmitri Artemov, Meiyappan Solaiappan, and Zaver M. Bhujwalla.

- 3045** Use of a Modified Ornithine Decarboxylase Promoter to Achieve Efficient eCMV- and nMYC-regulated Protein Expression, Rekha V. Iyengar, Cynthia A. Pawlik, Erik J. Knoll, Doris A. Phelps, Rebecca A. Burger, Linda C. Harris, Philip M. Potter, and Mary K. Danks.

- 3053** Ribozyme Cleavage of Telomerase mRNA Sensitizes Breast Epithelial Cells to Inhibitors of Telomerase, Antje Ludwig, Gabriele Saretzki, Per S. Holm, Frank Timmann, Mario Lorenz, Thomas Enrich, Calvin B. Harley, and Thomas von Zglinicki.

- 3062** Caspases as Key Executors of Methyl Selenium-induced Apoptosis (Anokis) of DU-145 Prostate Cancer Cells, Cheng Jiang, Zaisen Wang, Howard Ganther, and Junxuan Lu.

- 3071** The Proteasome Inhibitor PS-341 Inhibits Growth, Induces Apoptosis, and Overcomes Drug Resistance in Human Multiple Myeloma Cells, Teru Hideshima, Paul Richardson, Dharminder Chauhan, Vito J. Palombella, Peter J. Elliott, Julian Adams, and Kenneth C. Anderson.

Immunology

- 3077** Adoptive Transfer Enables Tumor Rejection Targeted against a Self-Antigen without the Induction of Autoimmunity, Steven C. Eck and Laurence A. Turka.

- 3084** Fas-induced Expression of Chemokines in Human Gloma Cells: Involvement of Extracellular Signal-regulated Kinase 1/2 and p38 Mitogen-activated Protein Kinase, Chulhee Choi, Xiang Xu, Jae-Wook Oh, Sung Joong Lee, G. Yancy Gillespie, Heonyoung Park, Hanjoong Jo, and Eddy N. Benveniste.

- 3092** Inhibition of Caspases Maintains the Antineoplastic Function of γ -T Cells Repeatedly Challenged with Lymphoma Cells, Marina Ferranti, Giuseppe Consiglio, Patrizia Rovere, Clara Sciorati, Lorenzo Dagna, Davide Resta, Claudio Rugarli, and Angelo A. Manfredi.

- 3096** IL-4 Prevents the Blockade of Dendritic Cell Differentiation Induced by Tumor Cells, Christine Menierier-Caux, Marie-Cécile Thomasset, Laurent Alberti, Gilles Montmain, and Jean Yves Blay.

Molecular Biology and Genetics

- 3105** Hypomethylation of the CpG Island of Ras Association Domain Family 1A (KRASFA), a Putative Tumor Suppressor Gene from the Sp121.3 Locus, Occurs in a Large Percentage of Human Breast Cancers, Reinhard Dammann, Glen Yang, and Gerd P. Pfleider.

- 3110** The Retinoblastoma Gene Regulates Somatic Growth during Mouse Development, Alexander Yu. Nikitin, Bei Shan, Andrea Flecken-Nikitin, Kai-Hsuan Chang, and Wen-Hwa Lee.

- 3119** Unusual Profile and High Prevalence of p53 Mutations in Esophageal Squamous Cell Carcinomas from Northern Iran, Firuzeh Birzimajani, Abdolmajid Allameh, Parvin Mirbad, Hermann-Josef Groene, Reet Koornagi, and Monica Hollstein.

- 3124** Transcriptional Gene Expression Profiles of Colorectal Adenocarcinoma, and Normal Tissue Examined by Oligonucleotide Arrays, Daniel A. Notterman, Uri Alon, Alexander J. Stern, and Arnold J. Levine.

- 3131** Identification of a Novel Human Fibroblast Growth Factor and Characterization of Its Role in Oncogenesis, Michael Jeffers, Richard Shrimpton, Sudhiradas Prayaga, Ferenc Boldog, Meijia Yang, Catherine Burgess, Elmira Fernandes, Beth Rittman, Juliette Shrimpton, William J. LaRochelle, and Henri S. Lichtenstein.

- 3139** Genetic and Clinical Features of Human Pancreatic Ductal Adenocarcinomas with Widespread Microsatellite Instability, Hiroyuki Yamamoto, Fumiyo Itoh, Hideki Nakamura, Hiroshi Fukushima, Shigeru Sakai, Manuel Peruchó, and Kohzoh Imai.

- 3145** The Alternative Reading Frame Tumor Suppressor Inhibits Growth through p21-dependent and p21-independent Pathways, Modestos Modestos, Valerie Puig-Antich, Chandrasekhar Kangojan, Alex Eapen, and Dawn E. Quelle.

- 3151** Bin1 Mediates Apoptosis by c-Myc in Transformed Primary Cells, James B. Duffin-Wade, Datoku Sakamuro, Donald L. Ewer, and George C. Prendergast.

Tumor Biology

- 3157** p53 and p21^{waf-1} Expression Correlates with Apoptosis or Cell Survival in Poorly Differentiated, but not Well-Differentiated, Retinoblastomas, Ayesha Diven, John Lawry, Ian R. Dunsmore, M. Andrew Parsons, and Janice A. Roys.

- 3164** Genomic Alterations in Malignant Transformation of Barrett's Esophagus, Peter H. J. Rieger, Kees J. Visser, Janneke C. Alers, Eric Geelen, Wim C. J. Ho, Hugo W. Titus, and Herman van Dekken.

- 3171** Characterization of Molecular Abnormalities in Human Fibroblastic Neoplasms: A Model for Genotype-Phenotype Association in Soft Tissue Tumors, Axel Hoos, Jonathan J. Lewis, Cristina R. Antoniou, Maria E. Didur, Larry Leon, James M. Woodruff, Murray F. Brennan, and Charles Gordon-Carver.

- 3176** Expression Profiling Suggested a Regulatory Role of Liver-enriched Transcription Factors in Human Hepatocellular Carcinoma, Liang Xu, Lijian Hu, Shuhui Wang, Jialeti Gong, Ying Jin, Yanping Wang, Yuan Jin, Xin Wu, Zheguang Han, and Gengxi Hu.

- 3182** Nitric Oxide Synthase II Gene Disruption: Implications for Tumor Growth and Vascular Endothelial Growth Factor Production, Tatiana E. Komppa, Jane E. Barker, Tiffany L. Bamford, Elizabeth Guida, Robin L. Anderson, and Alastair G. Stewart.

- 3188** Overexpression of CDC25B Overrides Radiation-induced G2-M Arrest and Results in Increased Apoptosis in Esophageal Cancer Cells, Hiroshi Miyata, Yutchni Doki, Hirofumi Yamamoto, Kentaro Kishi, Hiroshi Takemoto, Yoshiaki Fujiwara, Takechi Yasuda, Masahiko Onaga, and Masatoshi Inoue, Hitoshi Shiozaki, I. Bernard Weinstein, and Morito Monden.

- 3194** Lysozyme Phosphatase Acid Promotes Matrix Metalloproteinase (MMP) Activation and MMP-dependent Invasion in Ovarian Cancer Cells, David A. Fishman, Yuying Liu, Shawn M. Ellerbroek, and M. Sharon Stack.

- 3200** Notch Signaling Induces Cell Cycle Arrest in Small Cell Lung Cancer Cells, Vitora Srurampang, Michael W. Borges, Rajani K. Ravi, Dagmar R. Arnold, Barry D. Nelkin, Stephen B. Baylin, and Douglas W. Ball.

- 3206** Vascular Endothelial Growth Factor-R and Vascular Endothelial Growth Factor-C Expression in Renal Cell Carcinomas Regulation by the von Hippel-Lindau Gene and Hypoxia, Sarah P. Cunningham, Margaret J. Currie, Cheng Han, Kevin Turner, Prudence A. E. Scott, Bridget A. Robinson, Adrian L. Harris, and Stephen B. Fox.

- 3212** Alternative and Aberrant Messenger RNA Splicing of the *mdm2* Oncogene in Invasive Breast Cancer, Jason Lukas, Da-Qing Gao, Mariana Keshmiri, Wen-Hsiang Wen, D. Tsao-Wei, Shoshana Rosenberg, and Michael F. Press.

3220 Announcements

Future Annual Meetings of the American Association for Cancer Research
Workshop on Pathobiology of Cancer
Workshop on Molecular Biology in Clinical Oncology
Workshop on Methods in Clinical Cancer Research
AACR Special Conferences in Cancer Research
Calendar of Events

3222 Correction

M. L. Slattery *et al.*, *Cancer Res.*, 61: 1000–1004, 2001.

3223 Author Index**Perspectives in Cancer Research**

- 3225 A Gene Hypermethylation Profile of Human Cancer.** Manel Esteller, Paul G. Corn, Stephen B. Baylin, and James G. Herman.
- 3230 A Mutator Phenotype in Cancer.** Lawrence A. Loeb.

Advances in Brief

- 3240 Tumor Cells Regulate the Lytic Activity of Tumor-specific Cytotoxic T Lymphocytes by Modulating the Inhibitory Natural Killer Receptor Function.** Asma Gati, Nadia Guerra, Julien Grion-Michel, Bruno Azzarone, Eric Adevin, Alessandro Moretti, Salem Chouai, and Anne Cagnard.
- 3245 Hepatomegaly in Transgenic Mice Expressing an Oncogenic Form of β -Catenin.** Axelle Cadoret, Christine Ovijero, Silven Saad-Khodrouci, Evelyn Souil, Monique Fabre, Béatrice Romagnoli, Axel Kahn, and Christine Perret.
- 3250 Molecular Regulation of Tumor Cell Vasculogenesis Mimicry by Tyrosine Phosphorylation: Role of Epithelial Kinase (Eck/EphA2).** Angela R. Hess, Elisabeth A. Seffor, Lynn M. G. Gardner, Kelly Carles-Kinch, Galen B. Schneider, Richard E. Belford, Michael S. Kinch, and Mary J. C. Hendrix.
- 3255 Alternative Pathways to Prostate Carcinoma Activate Prostate Stem Cell Antigen Expression.** Purunita Dubey, Hong Wu, Robert E. Reiter, and Owen N. Witte.
- 3262 Cytosine-Phosphoguanine Methylation of Estrogen Receptors in Endometrial Cancer.** Masaharu Sasaki, Louisa Kotcherugina, Abhipsa Dharia, Seiichiro Fujimoto, and Rajiv Dahia.
- 3267 Promotion of Seminomatous Tumors by Targeted Overexpression of Glial Cell Line-derived Neurotrophic Factor in Mouse Testes.** Xuanjun Meng, Ding G. de Roos, Kenneth Wesselaert, Marit Saarma, and Hanna Sarjala.
- 3272 Methylenetetrahydrofolate Reductase Polymorphism Increases Risk of Esophageal Squamous Cell Carcinoma in a Chinese Population.** Chunyang Song, Dejin Ying, Wen Tan, Qingsi Wei, and Dongxin Lin.
- 3276 Overexpression of a Dominant-Negative Signal Transducer and Activator of Transcription 3 Variant in Tumor Cells Leads to Production of Soluble Factors That Induce Apoptosis and Cell Cycle Arrest.** Guilian Liu, Kenneth H. Shan, Mei Huang, Rajani Ravi, Atul Bedi, William S. Dalton, Richard Jove, and Hua Yu.
- 3281 Effective Tumor Therapy with Plasmid-encoded Cytokines Combined with In Vivo Electroporation.** Frank Lohr, David Y. Lo, David A. Zaffaroni, Kang Hu, Xiuwu Zhang, Yongping Li, Yulin Zhao, Mark W. Dewhirst, Fan Yuan, and Chuan-Yuan Li.
- 3284 Nitric Oxide-releasing Nonsteroidal Anti-inflammatory Drugs (NSAIDs) Alter the Kinetics of Human Colon Cancer Cells More Effectively than Traditional NSAIDs: Implications for Colon Cancer Chemoprevention.** Jonnie L. Williams, Simona Boggi, Irfan Hasan, Eddy Castillo, Frank Traganos, and Basile Rigau.

- 3290 Angiogenic Activity of Pyruvic Acid in *In vivo* and *In vitro* Angiogenesis Model.** Mi-Sook Lee, Eun-Jeong Moon, Sae-Won Lee, Myoung Soo Kim, Kyu-Won Kim, and Yung-Jin Kim.
- 3294 Neutral Endopeptidase Inhibits Neuropeptide-mediated Transactivation of the Insulin-like Growth Factor Receptor- α Cell Survival Pathway.** Makoto Sumimoto, Matthew E. Milowsky, Ruqian Shen, Daniel Navarro, Jei Dai, Tomohiko Asano, Masamichi Hayakawa, and David M. Nanus.

Regular Articles**Carcinogenesis**

- 3299 The Cap-'n'-Collar Basic Leucine Zipper Transcription Factor NF2/E2F-p53-related Factor 2 Controls Both Constitutive and Inducible Expression of Intestinal Detoxification and Glutathione Biosynthetic Enzymes.** Michael McMahon, Ken Itoh, Masayuki Yamamoto, Simon A. Chanas, Colin J. Henderson, Lesley I. McLehan, C. Roland Wolf, Christopher Cavin, and John D. Hayes.
- 3300 Synthetic Peptides Inhibit Adhesion of Human Tumor Cells to Extracellular Matrix Proteins.** Ian B. DeRoock, Michael E. Pennington, Thomas C. Stroka, Kit S. Lam, G. Tim Bowden, Elisabeth L. Bair, and Anne E. Cross.
- 3314 Prevention of Apoptosis by 2,7,8-Tetrachlorobiphenzo-p-dioxin (TCDD) in the MCF-10A Cell Line: Correlation with Increased Transforming Growth Factor α Production.** John W. Davis II, Fredrik T. Lauer, Andrew D. Burdick, Laurie G. Hudson, and Scott W. Burchell.

Epidemiology and Prevention

- 3321 An Intrinsic Poly (AT) Polymorphism of the DNA Repair Gene XPC and Risk of Squamous Cell Carcinoma of the Head and Neck: A Case-Control Study.** Hongbing Shen, Erich M. Sturis, Sikandar G. Khan, Yawen Qiao, Tala Shahbazi, Susan A. Eicher, Yinchu Xie, Xinni Wang, Sara S. Strom, Margaret R. Spitz, Kenneth H. Kramer, and Qingsi Wei.
- 3326 Do Urinary Estrogen Metabolites Reflect the Differences in Breast Cancer Risk between Singapore Chinese and United States African-American and White Women?** Gisele Ursin, Melissa Wilson, Brian E. Henderson, Laurence N. Kolonel, Kristine Monroe, Hin-Peng Lee, Adeline Seow, Mimi C. Yu, Frank Z. Stanczyk, and Elisabet Gentschew.

April 15, Number 8**Experimental Therapeutics**

- 3330 Antitumor Activity and Bystander Effects of the Tumor Necrosis Factor-related Apoptosis-inducing Ligand (*TRAIL*) Gene.** Shunsuke Kagawa, Chao He, Jian Gu, Patricia Koch, Jui-Jou Rha, Jack A. Roth, Steven A. Curley, Clinton Stephens, and Binfang Fang.
- 3339 Cloning and Characterization of Human Adenosine 5'-triphosphate-binding Cassette, Subfamily A, Transporter 2 (ABCA2).** Bojana Vuletic, Zhipan Chen, Jonathan T. Boyd, Warren Davis, Jr., Eileen S. Walsh, Martin G. Belinsky, and Kenneth D. Tew.
- 3348 Hypoxia in Radiation-induced Blood-Spinal Cord Barrier Breakdown.** Yu-Qing Li, James R. Ballinger, Robert A. Nondal, Zi-Fen Su, and C. Shan Wong.
- 3355 Preemptive Control of Graft-versus-Host Disease in a Murine Allogenic Transplant Model Using Retrovirally Transduced Murine Sustained Lymphocytes.** Steven M. Kumbhani, Irina Strobl, Virginia Stell, Diana Przepiorka, L. Clinton Stephens, Richard Champlin, and Frank C. Marin III.
- 3361 24-Oxo Metabolites of Vitamin D₃ Analogs: Dissociation of Their Prominent Anticancer Effects from Their Lack of Calcium Modulation.** Masakazu Shiohara, Milan Uskokovic, Junichi Hisatake, Yasuko Hisatake, Kenichi Koike, Atsushi Komiyama, and H. Philip Koefoed.
- 3369 The Antiangiogenic Property of Docetaxel Is Synergistic with a Recombinant Humanized Monoclonal Antibody against Vascular Endothelial Growth Factor or 2-Methoxyestradiol but Antagonized by Endothelial Growth Factors.** Christopher J. Sweeney, Kathy D. Miller, Sean E. Sissont, Shinichi Nozaki, Douglas K. Heilmann, Jianzhou Shen, and George W. Sledge, Jr.
- 3373 p53^{mp21}CIPI Cooperate in Enforcing Rapamycin-induced G₁ Arrest and Determine the Cellular Response to Rapamycin.** Shile Huang, Linda N. Liu, Hajime Hosoi, Michael B. Dilling, Takuma Shikata, and Peter J. Houghton.
- 3382 Attenuation of Doxorubicin Chronic Toxicity in Metallothionein-overexpressing Transgenic Mouse Heart.** Xuhua Sun, Zhanxiang Zhou, and Y. James Kang.

- 3388 Human Dendritic Cells Transfected with Renal Tumor RNA Stimulate Polyclonal T-Cell Responses against Antigens Expressed by Primary and Metastatic Tumors.** Axel Heiser, Margaret A. Maurice, Donna R. Yancey, Doris M. Coleman, Philipp Dahn, and Johannes Vieweg.
- 3394 EIA Sensitizes HER2/neu-overexpressing Ewing's Sarcoma Cells to Topoisomerase II-targeted Anticancer Drugs.** Zhichao Zhou, Shu-Fang Jia, Mien-Chie Hung, and Eugene S. Kleinerman.

Immunology

- 3399 A Role of Interferon- γ (IFN- γ) in Tumor Immunity: T Cells with the Capacity to Reject Tumor Cells Are Generated But Fail to Migrate to Tumor Sites in IFN- γ -Deficient Mice.** Chigusa Nakajima, Yasuhiro Uekusa, Masayuki Iwasaki, Nobuya Yamaguchi, Takuji Matsui, Ping Gao, Michio Tomita, Shiro Ono, Takafumi Tsujimura, Hiroshi Fujiwara, and Toshiyuki Hamashita.

Molecular Biology and Genetics

- 3406 β -Catenin Mutations in Bilary Tract Cancers: A Population-based Study in China.** Asif Rashid, Yu-Tang Gao, Supriya Bhakta, Ming-Chang Shen, Bing-Sheng Wang, Jie Deng, Joseph F. Fraumeni, Jr., and Ann W. Hwang.
- 3410 Epigenetic Patterns in the Progression of Esophageal Adenocarcinoma.** Cindy A. Eads, Reginald V. Lord, Kumar Wickramasinghe, Tiffany L. Long-Soudamain, Kurumabori, Leslie Bernstein, Jeffrey H. Peters, Steven R. DeMeester, Tom R. DeMeester, Kristin A. Skinner, and Peter W. Laird.
- 3419 p16^{INK4a} and Histology-specific Methylation of CpG Islands by Exposure to Tobacco Smoke in Non-Small Cell Lung Cancer.** Duk-Hwan Kim, Heather H. Nelson, John K. Wiencke, Shichun Zheng, David C. Christiani, John C. Wang, Eugene J. Mark, and Karl T. Kehey.
- 3425 Cloning of a New Member of the Human Kallikrein Gene Family, *KLK14*, Which Is Down-Regulated in Different Malignancies.** George M. Yosef, Angeliki Maglara, Albert Chang, Klaus Jung, Dionyssios Katsaros, and Eleftherios P. Diamandis.

- 3432 Gestational Age and Gender-specific *In Utero* V(D)J Recombinase-mediated Deletions.** Makoto Yoshisaka, J. Patrick O'Neill, Pamela M. Vacek, and Barry A. Finette.

- 3439 Partial Deletions of the Long and Short Arm of Chromosome 3 Point to Two Tumor Suppressor Genes in Uveal Melanomas.** Frank Tschentscher, Gabriele Prescher, Douglas E. Horstman, Valerie A. White, Harald Sander, Gerassimos Anastassiou, Harald Schüling, Norbert Bornfeld, Karl Ulrich Barth, Bernhard Horsthemke, Dietmar R. Lohmann, and Michael Zeschigk.

Tumor Biology

- 3443 Beclin 1 Contains a Leucine-rich Nuclear Export Signal That Is Required for Its Autophagy and Tumor Suppressor Function.** Xiao Huan Liang, Jie Yu, Kristy Brown, and Beth Levine.
- 3450 Down-Regulation of Vascular Endothelial Growth Factor by Tissue Inhibitor of Metalloproteinase-2: Effect on *in Vitro* Mammary Tumor Growth and Angiogenesis.** Amin Hajou, Nor-Eddine Soumi, Laetitia Devy, Christine Grignet-Debus, Jean-Marc Lewalle, Hong Li, Christophe F. Deruelle, He Lu, Alain Colige, Betty V. Nusgens, Francis Frankeine, Anne Marion, Patrice Yeh Michel Perricaudet, Yawen Chang, Claudine Soria, Claire-Michelle Calberg-Bacq, Jean-Michel Foidart, and Agnès Noël.

- 3458 Subcellular Localization and Distribution of the Breast Cancer Resistance Protein Transporter in Normal Human Tissues.** Marc Malpede, George L. Scheffer, Ian F. Faneyte, Margit A. van Gastelen, Adriana C. L. M. Pijnenborg, Alfred H. Schinkel, Marc J. van de Vijver, Rik J. Schepen, and Jan H. M. Schellens.

- 3465 Down-Regulation of β -Catenin-TCF Signaling Is Linked to Colonic Epithelial Cell Differentiation.** John M. Mariashan, Michael Bordbaro, Faizia Aslam, Li Shi, Mari Kuraguchi, Anna Velickich, and Leonard H. Angenlich.

- 3472 Mouse Intestinal Goblet Cells Expressing SV40 T Antigen Directed by the MUC2 Mucin Gene Promoter Undergo Apoptosis upon Migration to the Villi.** Charles R. Guse, Jr., James W. Hicks, Anne Marie Gillegot, Jose L. Rias, Patrick A. Guse, Scott C. Kogan, Elaine J. Carlson, Charles J. Epstein, and Young S. Kim.

- 3480 Genetic Background Affects Susceptibility to Mammary Hyperplasias and Carcinomas in *Apc*^{Min/+} Mice.** Amy Raapach Moser, Laura F. Hegge, and Robert D. Cardiff.

- 3486 Increased Activator Protein 1 Activity as Well as Resistance to Heat-induced Radiosensitization, Hydrogen Peroxide, and Cisplatin Are Inhibited by Indomethacin in Oxidative Stress-resistant Cells.** C. Mathew Bradley, Jacob E. Locke, S. Jack Wei, Luis M. Rene, Shervin Karimpour, Clayton Hunt, Douglas R. Spitz, and David Giuis.

- 3493 An Intracellular Form of Cathepsin B Contributes to Invasiveness in Cancer.** Anna M. Szpruderska and Allen Frankfurter.

- 3501 Viruses as Antitumor Weapons: Defining Conditions for Tumor Remission.** Dominik Wodarz.

- 3508 Down-Regulation of *E-Cadherin* Gene Expression by Collagen Type I and Type III in Pancreatic Cancer Cell Lines.** Andre Merke, Christian Philipp, Roger Vogelmann, Bjoern Seidel, Manfred P. Lutz, Guido Adler, and Doris Wedlich.

Virology

- 3518 Interleukin 12-activated Lymphocytes Influence Tumor Genetic Programs.** Federica Cavallo, Elena Quagliuolo, Lorendana Cifaldi, Emma Di Carlo, Alessandra André, Paola Bernabei, Piero Musiani, Guido Formi, and Raffaele A. Caligero.

Meeting Report

- 3524 Third International Dresden Symposium on Immunotherapy of Cancer.** Marc Schmitz, Martin Bornhäuser, Detlef Ockert, Ernst Peter Rieber.

3529 Announcements

- Future Annual Meetings of the American Association for Cancer Research
Workshop on Pathobiology of Cancer
Workshop on Molecular Biology in Clinical Oncology
Workshop on Methods in Clinical Cancer Research
AACR Special Conferences in Cancer Research
Calendar of Events

3531 Erratum

- D. Li *et al.*, *Cancer Res.*, 61: 1445–1450, 2001.

3532 Author Index

May 1, Number 9

Advances in Brief

- 3535 Enhanced Chemosensitivity to CPT-11 with Proteasome Inhibitor PS-341: Implications for Systemic Nuclear Factor- κ B Inhibition.** James C. Casack, Jr., Rong Liu, Michael Houston, Karin Abendroth, Peter J. Elliott, Julian Adams, and Albert S. Baldwin, Jr.

- 3541 Mutations in Fibroblast Growth Factor Receptor 2 and Fibroblast Growth Factor Receptor 3 Genes Associated with Human Gastric and Colorectal Cancers.** Jun-Hyung Jang, Ki-Hyuk Shin, and Jae-Gabb Park.

- 3544 Alterations of Gene Expression during Colorectal Carcinogenesis Revealed by cDNA Microarrays after Laser-Capture Microdissection of Tumor Tissues and Normal Epithelia.** Osamu Kitahara, Yoichi Furukawa, Toshihiro Tanaka, Chiaki Kihara, Kenji Ono, Renpei Yanagawa, Marcelo E. Nita, Toshihiko Takagi, Yosuke Nakamura, and Tatsuhiko Tsunoda.

- 3550 Amplification and Overexpression of Androgen Receptor Gene in Hormone-Refactory Prostate Cancer.** Marika J. Linja, Kimmo J. Savinainen, Outi R. Saranäki, Teuvo L. J. Tammiola, Robert L. Vessella, and Tapio Visakorpi.

- 3556 A Genetically Tractable Model of Human Glioma Formation.** Jeremy N. Rich, Chuahua Guo, Roger E. McLendon, Darell D. Bigner, Xiao-Fan Wang, and Christopher M. Counter.

- 3561 Erythropoietin and Erythropoietin Receptor Expression in Human Cancer.** Geza Acs, Peter Acs, Susan M. Beckwith, Richard L. Pitts, Emily Clements, Kondi Wong, and Ajay Verma.

- 3566 CYP2C9 and UGT1A6 Genotypes Modulate the Protective Effect of Aspirin on Colon Adenoma Risk.** Jeannette Bigler, John Whinton, Johanna W. Lampe, Lisa Fosdick, Robert M. Bostick, and John D. Potter.

- 3570 Mutations in the Nijmegen Breakage Syndrome Gene (*NBS1*) in Childhood Acute Lymphoblastic Leukemia (ALL).** Raymonda Varon, André Reis, Günter Henze, Hagen Graf v. Einsiedel, Karl Sperling, and Karinthe Seeger.

- 3573 Accelerated Age-related CpG Island Methylation in Ulcerative Colitis.** Jean-Pierre J. Issa, Nita Ahuja, Minoru Toyota, Mary P. Bonner, and Teresa A. Brentnall.

- 3578 Loss of Heterozygosity Events Impeding Breast Cancer Metastasis Contain the *MTA1* Gene.** Michelle D. Martin, Kathy Fischbach, C. Kent Osborne, Syed K. Mohsin, D. Craig Allred, and Peter O'Connell.

- 3581 5' CpG Island Methylation of the *FHIT* Gene Is Correlated with Loss of Gene Expression in Lung and Breast Cancer.** Sabine Zschiesche-Müller, Kwun M. Fung, Anirban Maitra, Stephen Lam, Joseph Geradis, Rafeeda Ashfaq, Arvind K. Virmani, Sarah Milichgrub, Adi F. Gazdar, and John D. Minna.

- 3586 Oncogenic TLS/ERG and EWS/Fli-1 Fusion Proteins Inhibit RNA Splicing Mediated by YB-1 Protein.** Howard A. Chamsky, Ming Hu, Dennis D. Hickstein, and Liu Yang.

- 3591 The Histone Deacetylase Inhibitor, CBHA, Inhibits Growth of Human Neuroblastoma Xenografts *In Vivo*, Alone and Synergistically with *All-Trans* Retinoic Acid.** Dennis C. Coffey, Martha C. Kuklo, Richard D. Glick, Lisa M. Butler, Glenn Heller, Richard A. Rifkind, Paul A. Marks, Victoria M. Richon, and Michael P. La Quaglia.

Regular Articles

Biochemistry and Biophysics

- 3595 Active Ras Induces Heterodimerization of cRaf and BRAF.** Christoph K. Weber, Joseph R. Slusky, H. Andreas Kalimes, and Ulf R. Rapp.

- 3599 Detection of Increased Chiral Compounds with Proton Nuclear Magnetic Resonance Spectroscopy Subsequent to Malignant Transformation of Human Prostatic Epithelial Cells.** Ellen Ackerstaff, Beth R. Plig, Joel B. Nelson, and Zaver M. Bhujwalla.

- 3604 Mechanism of Attenuation of Skeletal Muscle Protein Catabolism in Cancer Cachexia by Eicosapentaenoic Acid.** Alison S. Whitehouse, Helen J. Smith, Joanne L. Drake, and Michael J. Tisdale.

- 3610 Tissue Inhibitor of Metalloproteinases-4 Inhibits But Does Not Support the Activation of Gelatinase A via Efficient Inhibition of Membrane Type 1-Matrix Metalloproteinase.** Heather F. Biggs, Charlotte J. Morrison, Georgina P. Butler, Marie A. Bogoyevitch, Zhiping Wang, Paul D. Soloway, and Christopher M. Overall.

Carcinogenesis

- 3619 Targeted Expression of *hcl-2* to Murine Basal Epidermal Keratinocytes Results in Paradoxical Retardation of Ultraviolet- and Chemical-induced Tumorigenesis.** Heidemarie Rossiter, Stefan Beissert, Christoph Mayer, Michael P. Schön, B. Gregor Wienrich, Erwin Tschachler, and Thomas S. Kupper.

- 3627 Evidence of DNA Repair/Processing Defects in Cultured Skin Fibroblasts from Breast Cancer Patients.** Mohammed A. Hanan, Yunus Siddiqui, Asem Rostom, Mohammed N. Al-Ahdal, Mohammad A. Chaudhary, and Mohammed Kunhi.

Endocrinology

- 3632 Silencing and Reactivation of the Selective Estrogen Receptor Modulator-Estrogen Receptor α Complex.** Hong Liu, Eun-Sook Lee, Alexander De Los Reyes, James W. Zapf, and V. Craig Jordan.

Epidemiology and Prevention

- 3640 Transcriptional Activation of the Thyroglobulin Promoter Directing Suicide Gene Expression by Thyroid Transcription Factor-1 in Thyroid Cancer Cells.** Hiroki Shimura, Hideyo Suzuki, Asako Miyazaki, Fumihiro Furuya, Kazuyasu Ohta, Kazutaka Haraguchi, Toyoshi Endo, and Toshimasa Onaya.

Experimental Therapeutics

- 3653 A Strategy for Antitumor Vascular Therapy by Targeting the Vascular Endothelial Growth Factor/Receptor Complex.** S. P. Cooke, G. M. Boxer, L. Lawrence, R. B. Peoley, D. I. R. Spencer, H. J. Begent, and K. A. Chester.

- 3660 Idelalisib Tyrosine Kinase Inhibitors Block Kit Activation and Growth of Small Cell Lung Cancer Cells.** Geoffrey W. Krystal, Sittisak Honswik, David Kiewlisch, Congxin Liang, Stefan Vasile, Li Sun, Gerald McMahon, and Kenneth E. Lipsom.

- 3669 Lipid Association Improves the Therapeutic Index of Lomustine [1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea] to Suppress 368-10 Tumor Growth in Rats.** Claudette R. Bethune, Russell J. Geyer, Alexander M. Spence, and Rodney J. Y. Ho.

- 3675 Modulation of Both Endogenous Folates and Thymidine Enhance the Therapeutic Efficacy of Thymidylate Synthase Inhibitors.** Clasina L. van der Wilt, Harold H. J. Backus, Kees Smid, Lizzy Comijn, Gijbert Veerman, Dorine Wouters, Daphne A. Voorn, David G. Priest, Marlene A. Bunn, Fraser Mitchell, Ann L. Jackman, Gerrit Jansen, and Godfried J. Peeters.

Immunology

- 3682 Intersection of Interferon and Hypoxia Signal Transduction Pathways in Nitric Oxide-induced Tumor Apoptosis.** Drory S. Tendler, Clare Bao, Tianhong Wang, Eric L. Huang, Edward A. Ratovitski, Drew A. Pardoll, and Charles J. Lowenstein.

- 3689 Cyclophosphamide, Doxorubicin, and Paclitaxel Enhance the Antitumor Immune Response of Granulocyte/Macrophage Colony Stimulating Factor-secreting Whole-Cell Vaccines in HER-2/neu Tolerized Mice.** Jean-Pascal H. Machiels, R. Todd Reilly, Leisha A. Emens, Anne M. Ercolini, Rachel Y. Lei, Diane Weintraub, Francesca I. Okyere, and Elizabeth M. Jaffee.

- 3698 Cancer Immunotherapy Using a DNA Vaccine Encoding the Translocation Domain of a Bacterial Toxin Linked to a Tumor Antigen.** Chien-Fu Hung, Wen-Fang Cheng, Keng-Fu Hsu, Chee-Yin Chai, Liangmei He, Morris Ling, and T-C Wu.

- 3704 Targeting Dendritic Cells to Enhance DNA Vaccine Potency.** Zhaoyang You, Xue Huang, Jenny Hester, Han Chong Toh, and Si-Yi Chen.

- 3712 Immunoscintigraphy with Positron Emission Tomography: Gallium-68 Chelate Imaging of Breast Cancer Pretreated with Bispecific Anti-MUC1/Anti-Ga Chelat Antibodies.** Jochen Schuhmacher, Sepp Kaul, Gabor Klivényi, Hans Jankermann, Achim Magener, Marcus Henze, Josef Doll, Uwe Haberkorn, Folker Amlinger, and Gunther Baster.

- 3718 High Frequency of Cytolytic T Lymphocytes Directed against a Tumor-specific Mutated Antigen Detectable with HLA Tetramers in the Blood of a Lung Carcinoma Patient with Long Survival.** Vassos Karanikas, Didier Colau, Jean-François Baranton, Rita Chari, Joëlle Thomard, Ido Gutierrez-Rodríguez, Céline Goffinet, Emile Van Schuppen, Patrick Weynants, Thierry Boucrot, and Pierre G. Coutle.

- 3725 Enhanced Activation of Human T Cells via Avipox Vector-mediated Hyperexpression of a Triad of Costimulatory Molecules in Human Dendritic Cells.** Ming-Zhu Zhu, Hiroshi Terashima, James Gulley, Dennis Pantic, Philip Arlen, Jeffrey Schlom, and Kwong Y. Tsang.

- 3735 Interleukin 18 Transfection Enhances Antitumor Immunity Induced by Dendritic Cell-Tumor Cell Conjugates.** Dian Wen Ju, Qun Tao, Guoliang Lou, Min Bai, Long He, Yili Yang, and Xuetao Cao.

Molecular and Biology and Genetics

- 3741 Growth and Gene Expression Profile Analyses of Endometrial Cancer Cells Expressing Exogenous PTEN.** Mieko Matsushita-Nishii, Motoko Uno, Kenji Ono, Tatsuhiko Tsunoda, Takeo Minaguchi, Hiroyuki Kuramoto, Masato Nishida, Toyomi Satoh, Toshihiro Tanaka, and Yusuke Nakamura.

- 3750 Metastasis-associated Differences in Gene Expression in a Murine Model of Osteosarcoma.** Chand Khanna, J. Khan, P. Nguyen, J. Prehn, J. Taylor, C. Yeung, J. Trepel, P. Meltzer, and L. Helman.

- 3760 *Trp-p8*, a Novel Prostate-specific Gene, Is Up-Regulated in Prostate Cancer and Other Malignancies and Shares High Homology with Transient Receptor Potential Calcium Channel Proteins.** Larisa Tsavaler, Michael H. Shapero, Stan Markowski, and Reiner Lauts.

- 3770 Tumor Necrosis Factor α Polymorphism Associated with Increased Susceptibility to Development of Adult T-Cell Leukemia/Lymphoma in Human T-lymphotropic Virus Type 1 Carriers.** Kunihiko Tsukasaki, Carl W. Miller, Tetsuya Kubota, Seishi Takeuchi, Takeshi Fujimoto, Shunichi Ikeda, Masao Tomonaga, and H. Philip Koefeler.

- 3775 Hypermutability to Ionizing Radiation in Mismatch Repair-deficient *Pms2* Knockout Mice.** Xiaoxin S. Xu, Latha Narayanan, Brady Dunkle, R. Michael Lisicki, and Peter M. Glazer.

- 3781 Ablation of p21waf1cip1 Expression Enhances the Capacity of p53-deficient Human Tumor Cells to Repair UVB-induced DNA Damage.** Jean-Philippe Therrien, Martin Loignon, Régén Drouin, and Elliot A. Drobetsky.

- 3787 Antitumor Drug Adozeoxine Differentially Affects Active and Silent Origins of DNA Replication in Yeast Checkpoint Kinase Mutants.** Yangzhou Wang, Terry A. Beerman, and David Kowalski.

- 3795 Genome-wide Allelotyping Analysis Reveals Multiple Sites of Allelic Loss in Gallbladder Carcinoma.** Ignacio I. Wistuba, Moying Tang, Anurban Maitra, Hector Alvarez, Pablo Troncoso, Fernando Pimentel, and Adri F. Gazdar.

- 3801 Short Mononucleotide Repeat Sequence Variability in Mismatch Repair-deficient Cancers.** Lin Zhang, Jian Yu, James K. V. Wilson, Sanford D. Markowitz, Kenneth W. Kinzler, and Bert Vogelstein.

Tumor Biology

- 3806 Isolation of a Novel Candidate Oncogene within a Frequently Amplified Region at 3q26 in Ovarian Cancer.** Xin-Yuan Guan, Jonathan S.T. Sham, Terence C.M. Tang, Yan Fang, Ke-Ke Huo, and Jin-Ming Yang.

- 3810 Roles of IKK Kinases and Protein Kinase CK2 in Activation of Nuclear Factor- κ B in Breast Cancer.** Raphaëlle Romieu-Mourier, Esther Landemans-Bollig, David C. Seldin, Abdulkader M. Traish, Frank Mercurio, and Gail E. Sonnenstein.

- 3819 N-Cadherin-mediated Intercellular Interactions Promote Survival and Migration of Melanoma Cells.** Gang Li, Kaputtu Satyamoorthy, and Meenhard Herlyn.

- 3826 Astrocyte-specific Expression of Activated p21-ras Results in Malignant Astrocytoma Formation in a Transgenic Mouse Model of Human Gliomas.** Hao Ding, Luba Roncarati, Patrick Shannon, Xiaoli Wu, Nelson Lau, Jan Karaskova, David H. Gutmann, Jeremy A. Squire, András Nagy, and Abhijit Guha.

Virology

- 3837 Human Papillomavirus Type 16 E6 and E7 Cooperate to Increase Epidermal Growth Factor Receptor (EGFR) mRNA Levels, Overcoming Mechanisms by which Excessive EGFR Signaling Shortens the Life Span of Normal Human Keratinocytes.** Gregory S. Akerman, William H. Tolleson, Kim L. Brown, Li Li Zyazik, Elena Mouratova, Timur S. W. Engin, Anamaria Basaraba, Ann L. Coker, Kim E. Creek, and Lucia Pristis.

Meeting Report

- 3844 Epithelial-Stromal Interactions and Tumor Progression: Meeting Summary and Future Directions.** Lynn M. Matisrian, Gerald R. Cunha, and Suresh Mohla.

Obituary

- 3847 In Memoriam: James A. Miller (1915–2000).** Allan H. Conney.

Announcements

- Future Annual Meetings of the American Association for Cancer Research
Workshop on Pathobiology of Cancer
Workshop on Molecular Biology in Clinical Oncology
Workshop on Methods in Clinical Cancer Research
AACR Special Conferences in Cancer Research
Calendar of Events

- 3852 Author Index**

Advances in Brief

- 3853** *In Vivo Evaluation of 5-¹⁸F-Furo[2'-deoxyuridine] as Tracer for Postron Emission Tomography in a Murine Pancreatic Cancer Model*. Ulrike Seitz, Martin Wagner, Andreas T. Vogg, Gerhard Glänting, Bernd Neumaier, Florian R. Greten, Roland M. Schmid, and Sven N. Reske.
- 3858** *AB1 Enhances Estrogen-dependent Induction of Cyclin D1 Expression*. Maricarmen D. Planas-Silva, Yongfeng Shang, Joana Liu Donaher, Myles Brown, and Robert A. Weinberg.
- 3863** *The COOH Terminus of p18INK4a Distinguishes Function from p16INK4a*. Jay Gump, Saralinda Turner, and James Koh.
- 3869** *Coordinately Up-regulated Genes in Ovarian Cancer*. Colleen D. Hough, Kathleen R. Cho, Alan B. Zonderman, Donald R. Schwartz, and Patrice J. Morris.
- 3877** *High Frequency of Promoter Hypermethylation of RASSF1A in Nasopharyngeal Carcinoma*. Kwok Wai Lo, Joseph Kwong, Angela Bik-Yui Hui, Sylvia Yat-Yee Chan, Kai-Tao Andrew Siu-Chung Chan, Lillian Shuk-Nga Chow, Peter M. L. Teo, Philip J. Johnson, Dolly Poon Huang.
- 3882** *Secreted Caveolin-1 Stimulates Cell Survival/Clonal Growth and contributes to Metastasis in Androgen-insensitive Prostate Cancer*. Salahudin A. Tahir, Guang Yang, Shin Ebata, Terry L. Timme, Takefumi Satoh, Likan Li, Alexei Goltsvez, Michael Ittmann, Joel D. Morrison, and Timothy C. Thompson.

Regular Articles

Biochemistry and Biophysics

- 3886** *Radiation-induced Genomic Rearrangements Formed by Nonhomologous End-Joining of DNA Double-Strand Breaks*. Kai Rothkamm, Martin Kühlne, Penny A. Jeggo, and Markus Löhrich.
- 3894** *Ionizing Radiation-induced, Mitochondria-dependent Generation of Reactive Oxygen/Nitrogen*. J. Kevin Leahy, Glenn Van Tuyle, Peck-Sun Lin, Rupert Schmidt-Ullrich, and Ross B. Mikkelson.

Carcinogenesis

- 3902** *Tamoxifen-induced Antitumorigenic/Antiestrogenic Action Synergized by a Selective Aryl Hydrocarbon Receptor Modulator*. Andrew McDougal, Mark Wormke, James Calvin, and Stephen Safe.
- 3908** *Suppression of Skin Tumorigenesis in c-Jun NH₂-terminal Kinase-2-deficient Mice*. Nanxue Chen, Masakazu Nomura, Qing-Bai She, Wei-Ya Ma, Ann M. Bode, Linan Wang, Richard A. Flavell, and Zigang Dong.
- 3913** *Molecular Nature of Ultraviolet B Light-induced Deletions in the murine Epidermis*. Mieko Horikuchi, Ken-ichi Masumura, Hirohoro Ikehara, Tetsuya Ono, Yusuke Kanke, and Takehiko Nohmi.
- 3919** *Dibenzo[1,3]dioxole Modulates Aryl Hydrocarbon Receptor Function and Expression of Cytochromes P450 1AI, 1A2, and 1B1*. Christopher J. MacDonald, Henry P. Clinton, and Grace Chao Yeh.
- 3925** *Mechanism of Lower Genotoxicity of Tamoxifen compared with Tamoxifen*. Shinya Shibutani, Annette Ravinderanath, Isamu Terashima, Naomi Suzuki, Y. R. Santosh Laxmi, Yoshikazu Kanno, Masanobu Suzuki, T. Iddi Apak, Jonathan J. Sheng, and Michael W. Duffel.

Clinical Investigation

- 3932** *Prognostic Significance of Activated CD8⁺ T Cell Infiltrations within Esophageal Carcinomas*. Karin Schumacher, Wolfgang Haensch, Claudia Rölfzaid, and Peter M. Schlag.

Endocrinology

- 3937** *Expression in Hematological Malignancies of a Glucocorticoid Receptor Splice Variant That Augments Glucocorticoid Receptor-mediated Effects in Transfected Cells*. Pieter de Lange, Christine M. Segelen, Jan W. Koper, Erik Wiemer, Peter Sonneveld, Albert O. Brinkmann, Anne White, Ian J. Brogan, Henk H. de Jong, and Steven W. Lamberts.
- 3942** *Differential Regulation of Cytochrome P450 1AI and 1B1 by a Combination of Dioxin and Pesticides in the Breast Tumor Cell Line MCF-7*. Xavier Coumou, Monique Diry, Cedric Robilot, and Robert Barouki.

Epidemiology and Prevention

- 3949** *Ethoxulind, a Novel Proapoptotic Drug, Inhibits Rat Urinary Bladder Tumorigenesis*. Gary A. Piazza, W. Joseph Thompson, Rifat Pamukcu, Hector W. Alila, Clark M. Whitehead, Li Liu, John R. Fetter, William J. Grish, Jr., Andres J. Klein-Szanto, Daniel R. Farrell, Isono Eto, and Clinton J. Grubbs.
- 3956** *Identification of the Transcriptional Regulatory Sequences of Human Cathepsin Promoter and Their Use in Targeting a Conditionally Replicating Herpes Vector to Malignant Human Soft Tissue and Bone Tumors*. Hisako Yamamura, Mito Hashis, Mika Noguchi, Youichi Sugeno, Masakazu Osakada, Noriko Hirano, Yumiko Sasaki, Takahiro Yoden, Nobuhisa Araki, Masaharu Tatsuta, Shin-Ichi Miyatake, and Katsuhiro Takahashi.

- 3978** *Binding of Novel Peptide Inhibitors of Type IV Collagenases to Phospholipid Membranes and Use in Liposomes Targeting to Tumor Cells *in Vitro*. Oula Penate Medina, Tim Söderlund, Liisa J. Laakkonen, Esko K. J. Tuominen, Erkki Koivunen, and Paavo K. J. Kinnunen.*
- 3986** *Akt1 Protein Kinase B is Constitutively Active in Non-Small Cell Lung Cancer Cells and Promotes Cellular Survival and Resistance to Chemotherapy and Radiation*. John Brugnard, Amy S. Clark, Yucheng Ni, and Phillip A. Dennis.

May 15, Number 10

- 3998** *Differentiation of Human Neuroblastoma by Phenylacetate Is Mediated by Peroxisome Proliferator-activated Receptor γ* . Shouwei Han, Randal K. Wada, and Neil Sidell.
- 4003** *Inhibition of Signal Transduction by the Hsp90 Inhibitor 17-Allylamino-17-demethoxygeldanamycin Results in Cytostasis and Apoptosis*. Isabelle Hostein, David Robertson, Francesca Di Stefano, Paul Workman, and Paul Andrew Clarke.
- 4010** *Disruption of the EF-2 Kinase/Hsp90 Protein Complex: A Possible Mechanism to Inhibit Glialblastoma by Geldanamycin*. Jun Yang, Jing-Ming Yang, Marie Iannone, Weichung Joe Shih, Yong Lin, and William N. Hatt.
- 4017** *Synergy between Methionine Stress and Chemotherapy in the Treatment of Brain Tumor Xenografts in Athymic Mice*. Demetruis M. Kokkinakis, Robert M. Hoffman, Eugene P. Frenkel, Jacqueline B. Wick, Qinghong Han, Mingtao Xu, Yuying Tan, and S. Clifford Schold.
- 4024** *Clinical Concentration of Doxorubicin Inhibit Activity of Myocardial Membrane-associated, Calcium-independent Phospholipase A₂*. Jian McHowther, Luther M. Swift, Ara Arutyunyan, and Narine Saravanyan.
- 4030** *Pervilleine A, a Novel Tropane Alkaloid that Reverses the Multidrug-resistant Phenotype*. Quanwen Mi, Baoliang Cai, Gloria L. Silva, Daniel Lanvit, Edna Lin, Heebyung Choi, Min You, Celia G. Hollingshead, Robert G. Mayo, A. Douglas Knighton, and John M. Pezzuto.
- 4038** *Osteoprotegerin Diminishes Advanced Bone Cancer Pain*. Nancy M. Luger, Priscilla Honar, Mary Ann C. Sabino, Matthew J. Schweig, Scott D. Rogers, David B. Mach, Denis R. Clohisy, and Ross W. Manthey.
- 4045** *Monoclonal Antibody SHP Targets a Novel Cell Surface Antigen Expressed by a Wide Spectrum of Human Solid Tumors*. Shaked Modak, Kim Kramer, S. Humayun Guluktekin, Hong Fen Guo, and Ken-Ichi Kwon Cheung.
- 4055** *Enhancement of Polymorphonuclear Cell-mediated Tumor Cell Killing on Simultaneous Engagement of Fc_YRI (CD64) and Fc_γRI (CD89)*. Marjolein van Egmond, Annetnek B. van Sprundel, Hans Vermeulen, Gerwin Huls, Evert van Garderen, and Jan G. J. van de Winkel.
- 4061** *Phagocytosis of Breast Cancer Cells Mediated by Anti-MUC-1 Monoclonal Antibody, DF3, and its Bispecific Antibody*. Charanw Akewanol, Michiaki Watanabe, Baljit Singh, Mignon Walker, Donald W. Kufe, and Daniel F. Hayes.
- 4066** *Interleukin (IL)-12 and IL-12 Gene Transfer Regulate Fas Expression in Human Osteosarcoma and Breast Cancer Cells*. Elizabeth A. Lafleur, Shufang Jia, Laura L. Worth, Zhichao Zhou, Lauri B. Owen-Schaub, and Eugene S. Kleinerman.
- 4072** *A MALE-1 HLAs-A*0201 Epitope Identified by Mass Spectrometry*. Steve Pascolo, Markus Schirle, Birgitt Guckel, Tilman Dumresse, Susanne Stumm, Simone Kayer, Arnaud Moris, Diethelm Wallwiener, Hans-Georg Rammensee, and Stefan Stevanovic.
- 4078** *A Putative Mutation in the α -Actinin-4 Gene Generates an Antigenic Peptide Recognized by Autologous Cytolytic T Lymphocytes on a Human Lung Carcinoma*. Hamid Ebrahimi, Fariba Mami-Choubai, Isabelle Vergnon, Jean-François Baurain, Vaios Karakas, Salem Chouabi, and Pierre G. Coulib.
- 4084** *Organ-specific Activation of Activator Protein-1 in Transgenic Mice by 12-O-Tetradecanoyl-phorbol-13-acetate with Different Administration Methods*. Shuping Zhang, James A. Quesley, Ann M. Bode, Masakazu Nomura, Akira Kaji, Wei-Ya Ma, and Zigang Dong.
- 4092** *TP53 Mutations in Breast Cancer Associated with BRCA1 or BRCA2 Germ-line Mutations: Distinctive Spectrum and Structural Distribution*. Marc S. Greenblatt, Pierre O. Chappuis, Jeffrey P. Bond, Nancy Hamel, and William D. Foulkes.
- 4098** *Genetic Progression and Heterogeneity Associated with the Development of Esophageal Squamous Cell Carcinoma*. Mark J. Roth, Nan Hu, Michael R. Emmert-Buck, Qiang-Hong Wang, Sanford M. Dawsey, Guang Li, Wen-Jie Guo, Yong-Zhen Zhang, and Philip R. Taylor.
- 4105** *The Epithelial Glycoprotein 2 (EGP-2) Promoter-driven Epithelial-specific Expression of EGF-2 in Transgenic Mice: A New Model to Study Carcinoma-directed Immunotherapy*. Pamela J. McLaughlin, Martin C. Hartigan, William H. Parker, Barbara K. Keeler, Mark van der Woude, Marja G. Brink, Harry Hollena, Marcel H. J. Runters, Charles H. C. M. Buys, and Lou F. M. H. de Letz.
- 4112** *Defects of DNA Mismatch Repair in Human Prostate Cancer*. Yian Chen, Jiansong Wang, Mostafa A. Fraig, John Metcalf, William R. Turner, Nabil K. Bissada, Dennis K. Watson, and Clifford W. Schwall.
- 4122** *A Simple Specific Pattern of Chromosomal Aberrations at Early Stages of Head and Neck Squamous Cell Carcinomas*. PIK3CA but not p53 Gene as a Likely Target of 5q26-qter Gains
- 4130** *Fusion of a Novel Gene, RCC17, to the TFE3 gene in t(17;11)(p11.2;q25.3)-bearing Papillary Renal Cell Carcinomas*. Pierre Heimann, Hakim El Housni, Gönül Ögür, Marian A. J. Waterman, Elizabeth M. Petty, and Gilbert Vassart.
- 4136** *Dynamic, Site-specific Interaction of Hypoxia-inducible Factor-1α with the von Hippel-Lindau Tumor Suppressor Protein*. Fang Yu, Sarah B. White, Quan Zhao, and Frank S. Lee.
- 4143** *Constitutive Sp1 Activity is Essential for Differential Constitutive Expression of Vascular Endothelial Growth Factor in Human Pancreatic Adenocarcinoma*. Qian Shi, Xiangdong Le, James L. Abbrevajato, Zhipai Peng, Chao-Nan Qian, Huamei Tang, Qinghua Xiong, Bailing Wang, Xiang-Chen Li, and Keping Xie.
- 4155** *Inactivation of p53 Sensitizes URTMG Gloma Cells to 1,3-bis(2-Chlorophenyl)-1-nitrosourea*. G. Wei Xu, Catherine L. Nutt, Magdalena C. Zlatescu, Michael Keeney, Ian Chin-Yee, and J. Gregory Caincross.
- 4160** *Transformation Nonresponsive Cells Owe Their Resistance to Lack of p53-Nuclear Factor-κB Activation*. Tin-Chew Hsu, Rajakalpana Hsu, Naresh Tulsi, Cormac E. Camilleri, Glenn A. Hegemeyer, Matthew R. Young, Nancy H. Colburn.
- 4166** *Whole Genome Amplification and High-Throughput Allelotyping Identified Five Distinct Deletion Regions on Chromosomes 5 and 6 in Microdissected Early-Stage Ovarian Tumors*. Vivian W. Wang, Debra A. Bell, Ross S. Berkowitz, and Samuel C. Monk.
- 4175** *New Inhibitors of Poly(ADP-ribose) Polymerase/PARP1 and PARP2 Identified Using a Cell-based Screen in Yeast*. Ed Perkins, Dongju Sun, Allen Nguyen, Suzana Tulac, Michelle Francesco, Homa Tavana, Hieu Nguyen, Stuart Tugendreich, Peter Barthmaier, Joe Costa, Elaine Yeh, Silke Thode, Kurt Jamagni, Ajay Jain, David Morgans, and Teri Melesse.
- Tumor Biology**
- 4184** *von Hippel-Lindau Protein Promotes the Assembly of Actin and Vinculin and Inhibits Cell Motility*. Masayuki Kamada, Keiji Suzuki, Yasumasa Kato, Heiwa Okuno, and Taro Shuin.
- 4190** *Identification and Validation of *PJU1* as a Glioblastoma Invasion Gene Using Laser Capture Microdissection*. Luigi Martini, Wendy S. McDonough, Dominique E. Hollinger, Christian Beaudry, Elizabeth Kaczmarek, Stephen W. Coons, Alf Giese, Moghadas Meghadam, Rolf W. Seiler, and Michael E. Berens.
- 4197** *Overexpression of the Retinoic Acid-responsive Gene *Str6* in Human Cancers and Its Synergistic Induction by Wt-1 and Retinoic Acid*. Wayne Szeto, Wen Jiang, David A. Tice, Bonnie Rubinfeld, Philip G. Hollingshead, Sharon E. Fong, Debra L. Dugger, Thinh Pham, Daniel G. Yancus, Terence A. Wong, J. Christopher Grimaldi, Racquel T. Corpuz, Jennifer S. Singh, Greshen A. Frantz, Brigitte Devaux, Craig W. Crowley, Ralph H. Schwall, David A. Eberhard, Luca Rustelli, Paul Polakis, and Diane Pennica.
- 4206** *Regulation of Tumor Angiogenesis by oxygen-regulated Protein 150, an Inducible Endoplasmic Reticulum Chaperone*. Kenjiro Ozawa, Yoshitane Tsukamoto, Osamu Horii, Yasuko Kitao, Hideki Yanagi, David M. Stern, and Satoshi Ogawa.
- 4214** *Up-Regulation of Cyclin-dependent Kinase 4/Cyclin D2 Expression but Down-Regulation of Cyclin-dependent Kinase 2/Cyclin E in Testicular Germ Cell Tumors*. Bettina Schmidt, Achim Rose, Christine Steinhoff, T. Strohmeier, Michael Hartmann, and Rolf Ackermann.
- 4222** *Transforming Growth Factor β 1 Treatment Leads to an Epithelial-Mesenchymal Transdifferentiation of Pancreatic Cancer Cells Requiring Extracellular Signal-regulated Kinase 2 Activation*. Volker Ellermeier, Sandra F. Hensler, Wolfgang Beck, Thomas Seufferlein, Andre Menke, Claudia Ruhland, Guido Adler, and Thomas Messer.
- 4229** *Enhanced Invasion and Tumor Growth of Fibroblast Growth Factor 8b-overexpressing MC3T3-E1 Human Breast Cancer Cells*. Johanna K. Rushola, Tim P. Vittauer, Eeva M. Valve, Jana A. Seppinen, Niina T. Loponen, Jaakko J. Keskkula, Päivi T. Lakkakorpi, and Pirkko L. Härkönen.
- 4238** *Genome-wide Hypomethylation in Hepatocellular Carcinogenesis*. Chiung-Hsin Lin, Sen-Yung Hsieh, I-Shyan Sheen, Wei-Chen Lee, Te-Ching Chen, Wei-Chue Shyu, and Yun-Fan Liaw.
- 4244** *Ganglioside GP2 in Small Cell Lung Cancer Cell Lines: Enhancement of Cell Proliferation and Mediation of Apoptosis*. Shoko Yoshida, Satoshi Fukumoto, Haruhiko Kawaguchi, Shigeki Sato, Ryoko Ueda, and Koichi Furukawa.
- 4253** *Stimulation of Tumor Growth by Human Soluble Intercellular Adhesion Molecule-1*. Yong Song Gho, Phillipa N. Kim, Hao-Chuan Li, Michael Elkin, and Hynda K. Kleinman.
- 4258** *Loss of Expression of a New Member of the DDAJ Protein Family Confers Resistance to Chemotherapeutic Agents Used in the Treatment of Ovarian Cancer*. Viji Shirish, Keith C. Bilezik, Julie Staub, Rajeswari Avula, Yen Kit Lee, Kimberly Kali, Haoyi Huang, Lynn C. Hartmann, Scott H. Kauffman, and David I. Smith.
- 4266** *Reduced Tumor Oxygenation by Treatment with Vinblastine*. Gregor Serra, Matjaž Kriz, Matjaž Semjenc, Tadejka Ivanusa, Katarina Beravs, Maja Cemazar, Matjaž Auersperg, and Harold M. Swartz.
- 4272** *Gadolinium in Human Glioblastoma Cells for Gadolinium Neutron Capture Therapy*. Gelsomina De Stasio, Patrizia Casabule, Roberta Pallini, Benjamin Gilbert, Francesca Santini, Maria Teresa Ciotti, Giancarlo Rossi, Armando Festini, Luisa Maria Larocca, Alessandro Rinelli, Didier Perret, David W. Mogk, Paolo Perfetti, Minesh P. Mehta, and Delio Mercanti.
- 4278** *The Ras Radiation Resistance Pathway*. Anjali K. Gupta, Vincent J. Chimenti, George J. Cerniglia, Yi Cheng, Eric J. Bernhard, Ruth J. Muschel, and W. Gillies McKenna.
- 4283** *Identification of Differentially Expressed Genes by Serial Analysis of Gene Expression in Human Prostate Cancer*. A. Waghray, M. Schober, F. Ferzane, F. Yao, J. Virgin, and Y. Q. Chen.
- Virology**
- 4287** *Detection of JC Virus DNA Sequences and Expression of the Viral Regulatory Protein T-Antigen in Tumors of the Central Nervous System*. Luis Del Valle, Jennifer Gordon, Martha Assimakopoulou, Sabrina Enam, Jennifer F. Geddes, John N. Varaklis, Christos D. Katsatos, Sidney Croul, and Kamel Khalil.
- Letters to the Editor**
- 4294** *Correspondence re: S. E. Blutt, T. C. Polek, L. V. Stewart, M. W. Kattan, and N. L. Weigel. *Cancer Res.*, 60: 779-782, 2000*. Gary G. Schwartz, Bal L. Lokeswar, and Kerry L. Bernstein, reply by Nancy L. Weigel, Sarah E. Blutt, Tara C. Polek, and LaMonica V. Stewart.
- 4295 Announcements**
- Future Annual Meetings of the American Association for Cancer Research**
- Workshop on Pathobiology of Cancer**
- Workshop on Molecular Biology in Clinical Oncology**
- Workshop on Methods in Clinical Research**
- AACR Special Conferences in Cancer Research**
- Calendar of Events**
- 4297 Correction**
- X. Huang *et al.*, *Cancer Res.*, 61: 478-481, 2001.
- 4298 Author Index**

Review

- 4301 Exploiting Cancer Cell Cycling for Selective Protection of Normal Cells.** Mikhail V. Blagosklony and Arthur B. Pardee.

Advances in Brief

- 4306 Progressive Decreases in Nuclear Retinoid Receptors during Skin Squamous Carcinogenesis.** Xiao-Chun Xu, Winnona Y. L. Wong, Leonard Goldberg, Susan C. Baer, John E. Wolf, William M. Ramsdell, David S. Alberts, Scott M. Lippman, and Reuben Lotan.

- 4311 Molecular Identification of Latent Precursors in Histologically Normal Endometrium.** George L. Mutter, Tan A. Ince, Jan P.A. Baak, Gregory A. Kast, Xiao-Ping Zhou, and Charis Eng.

- 4315 A Mechanism for Androgen Receptor-mediated Prostate Cancer Recurrence after Androgen Deprivation Therapy.** Christopher W. Greig, Bin He, Raymond T. Johnson, O. Harris Ford, James L. Mohler, Frank S. French, and Elizabeth M. Wilson.

- 4320 Discovery of New Markers of Cancer through Serial Analysis of Gene Expression: Prostate Stem Cell Antigen Is Overexpressed in Pancreatic Adenocarcinoma.** Pedram Argani, Christophe Rusty, Robert E. Reiter, Rob E. Wilenz, Selva R. Munegowda, Steven D. Leach, Byungwoo Ryu, Halcyon G. Skinner, Michael Goggins, Elizabeth M. Jaffee, Charles J. Yeo, John L. Cameron, Scott E. Kern, and Ralph H. Hruban.

- 4325 Uterine Adenocarcinoma in Mice Treated Neonatally with Genistein.** Retha R. Newbold, Elizabeth Padilla Banks, Bill Bullock, and Wendy N. Jefferson.

- 4329 Roles of Akt and Glycogen Synthase Kinase 3β in the Ultraviolet B Induction of Cyclooxygenase-2 Transcription in Human Keratinocytes.** Qingbo Tang, Melissa Gonzales, Hiroyasu Inoue, and G. Tim Bowden.

- 4333 Vitamin D Receptor Gene Polymorphisms, Insulin-like Growth Factors, and Prostate Cancer Risk: A Population-based Case-Control Study in China.** Anand P. Chokkalingam, Katherine A. McGlynn, Yu-Tang Gao, Michael Pollak, Jie Deng, Isabell A. Sesterhenn, F. K. Mostofi, Joseph F. Fraumeni, Jr., and Ann W. Hsing.

- 4337 Expression of Nerve Growth Factor Receptors and Their Prognostic Value in Human Breast Cancer.** Simon Descamps, Valérie Pawlowski, Françoise Révil, Louis Hornez, Mohamed Hebbar, Béroni Boilly, Hubert Hondermarck, and Jean-Philippe Peyrat.

- 4341 Kinetics and Viability of Circulating Endothelial Cells as Surrogate Angiogenesis Marker in an Animal Model of Human Lymphoma.** Silvia Monestrell, Patricia Marcuso, Alessandra Burini, Giancarla Pruneri, Chiara Dell'Agno, Alberto Gobbi, Giovanni Martellini, and Francesco Bertolini.

- 4345 Genetic Alterations of Candidate Tumor Suppressor ING1 in Human Esophageal Squamous Cell Cancer.** Lisheng Chen, Nagahide Matsubara, Tadashi Yoshino, Takeshi Nagasaka, Naoko Hoshizima, Yasuhiro Shirakawa, Yoshiro Naomoto, Hiroshi Isozaki, Kari Riabowol, and Noriaki Tanaka.

Regular Articles

Carcinogenesis

- 4350 p53 and K-ras Mutations in Lung Cancers from Former and Never-Smoking Women.** Kirsi H. Viikinkangas, William P. Bennett, Katarina Castren, Judith A. Weisz, Mohammed A. Khan, Brunnhilde Blomeke, Michael C. R. Alavanja, and Curtis C. Harris.

- 4357 Human Cutaneous Fatty Acid-binding Protein Induces Metastasis by Up-regulating the Expression of Vascular Endothelial Growth Factor Gene in Rat Ramu 37 Model Cells.** Chun Jing, Carol Bresley, Christopher S. Foster, Haijun Chen, Philip S. Rodland, David C. West, Hiroshi Fujii, Paul H. Smith, and Youping Ke.

- 4365 Oxidative Stress in the Absence of Inflammation in a Mouse Model for Hepatic C Virus-associated Hepatocarcinogenesis.** Kyoko Moriya, Kiyotaka Miyashita, Takeya Tomizumi, Teru Mizushima, Kotaro Ishibashi, Toshiharu Horie, Kazuhiko Ima, Tora Tokodori, Satomi Kimura, and Kazuhiko Kikuchi.

- 4371 Application of the National Cancer Institute International Criteria for Determination of Microsatellite Instability in Ovarian Cancer.** Anil K. Sood, Rick Holmes, Mary J. C. Hendrix, and Richard E. Buller.

Clinical Investigation

- 4375 Cyclooxygenase-2 Expression in Human Gliomas: Prognostic Significance and Molecular Correlations.** Tadao Shono, Philip J. Tofflon, Janet M. Bruner, Olubunmi Owolabi, and Frederick F. Lang.

- 4382 Abnormal Fragile Histidine Triad (FHIT) Expression in Advanced Cervical Carcinoma: A Poor Prognostic Factor.** Thomas C. Krivak, John W. McBroom, Jeffrey Seidman, David Venanzio, Barbara Crothers, Paul J. MacKoul, G. Scott Rose, Jay W. Carlson, and Michael J. Birrer.

Endocrinology

- 4386 Caspoflox-1 Mediates Testosterone-stimulated Survival/Clonal Growth and Promotes Metastatic Activities in Prostate Cancer Cells.** Likun Li, Guang Yang, Shin Ebata, Takafumi Satoh, Yasutomo Nasu, Terry L. Timme, Chengchen Ren, Jianfang Wang, Salahaldin A. Tahir, and Timothy C. Thompson.

- 4393 ¹¹¹In-labeled 1,4,7-Tetraazacyclodecan-*N,N',N'',N'''*-tetraacetic Acid-Lys⁸-Visoctocin: A New Powerful Radioligand for Octoxin Receptor-expressing Tumors.** Gianni Bussolati, Marco Chinol, Bice Chini, Angelo Naccia, Paola Cassoni, and Giovanni Paganelli.

Epidemiology and Prevention

- 4398 Association of CYP1B1 Codon 432 Mutant Allele in Head and Neck Squamous Cell Cancer Is Reflected by Somatic Mutations of p53 in Tumor Tissue.** Yon Ko, Josef Abel, Volker Harb, Peter Brode, Christiane Antony, Susanne Donat, Hans-Peter Fischer, Maria Elena Ortiz-Pullardo, Ricardo Thier, Agapito Sachindra, Hans Veter, Hermann-Maximilian Bolt, Claus Herberhold, and Thomas Brüning.

June 1, Number 11

Experimental Therapeutics

- 4405 The Use of the *t*-Plastin Promoter for Adenoviral-mediated, Tumor-specific Gene Expression in Ovarian and Bladder Cancer Cell Lines.** Xue Yan Peng, Jong Ho Won, Thomas Rutherford, Takuma Fuji, Daniel Zelterman, Giuseppe Pizzorno, Eva Sapi, John Lewitt, Barry Kacinski, Ronald Crystal, Peter Schwartz, and Albert Deisseroth.

- 4414 Antitumor Effect of β -Mercaptoethanol in Cell-lineaging Mice via Apoptosis-inducing Activity: Activation of Caspase-3 and Nuclear Factor- κ B.** Masaki Mori, Yasuhiro Terui, Miyuki Takanishi, Hiroshi Tomizuka, Yoji Mishima, Masayuki Ikeda, Tadashi Kawahara, Masaya Uswi, Masumi Ueda, Rei Inoue, Takehiko Itoh, Muneyuki Yamada, Hirotoshi Hayasawa, Yusuke Furukawa, Yukihiko Ishizaka, Keiji Ozawa, and Kyoko Hatake.

- 4418 The Bisphosphonate Ibandronate Promotes Apoptosis in MDA-MB-231 Human Breast Cancer Cells in Bone Metastases.** Toru Hiraga, Paul J. Williams, Gregory R. Mundt, and Yoshiaki Yoneida.

- 4425 Isootype-specific Ras-GTP Levels Predict the Efficacy of Farnesyl Transferase Inhibitors against Human Astrocytomas Regardless of Ras Mutational Status.** Matthias M. Feldman, Nelson Lau, Lubna Roncarini, and Abhijit Guha.

- 4432 Osteoprotegerin Inhibits Osteolysis and Decreases Skeletal Tumor Burden in Syngeneic and Nude Mice Models of Experimental Bone Metastasis.** Sean Moroney, Casey Capparelli, Ildiko Sarosi, David L. Lacey, Colin R. Dunstan, and Paul J. Kostenuik.

- 4437 Frequent, Moderate-Dose Cyclophosphamide Administration Improves the Efficacy of Cyclophosphamide P-450/Cytochrome P-450 Reductase-based Cancer Gene Therapy.** Youself Joumali and David J. Waxman.

- 4445 Selective Targeting to the Hyperactive β -Catenin/T-Cell Factor Pathway in Colon Cancer Cells.** Rui-Hong Chen and Frank McCormick.

- 4450 The c-Jun NH₂-terminal Protein Kinase/AP-1 Pathway Is Required for Efficient Apoptosis Induced by Vinblastine.** Meiyun Fan, Mary E. Goodwin, Michael J. Birrer, and Timothy C. Chambers.

- 4459 Cyclo Hydroxamic-acid-containing Peptide 31, a Potent Synthetic Histone Deacetylase Inhibitor with Antitumor Activity.** Yasuhiko Komatsu, Kin-ya Tomizaki, Makiko Tsukamoto, Tamaki Kato, Norikazu Nishino, Shigeo Sato, Takao Yamori, Takashi Tsuruo, Ryoshei Furumai, Minoru Yoshida, Sueharu Horinouchi, and Hideya Yoshida.

- 4467 A Naturally Occurring Secreted Human Erbb3 Receptor Isoform Inhibits Heregulin-stimulated Activation of Erbb2, Erbb3, and Erbb4.** Hajko Lee, Robert W. Akita, Mark X. Stilwski, and Nita J. Mailhe.

Immunology

- 4474 Specific Localization, Gamma Camera Imaging, and Intracellular Trafficking of Biotinylated Chimeric Anti-Gp450/Ganglioside Monoclonal Antibody KM871 in SK-MEL-28 Melanoma Xerografts.** Fouad Thean Lee, Angela Rigopoulos, Catherine Hall, Kerrie Clarke, Stephen H. Conn, Fiona E. Smyth, Zhang Liu, Martin W. Brechbiel, Nobuo Hanai, Edwards C. Nice, Bruno Catimel, Antony W. Burgess, Sydney Welt, Gerd Ritter, Lloyd J. Old, and Andrew M. Scott.

- 4483 Immunophenotyping of Leukemias Using a Cluster of Differentiation Antibody Microarray.** Larissa Belov, Odette de la Vega, Cristobal G. dos Remedios, Stephen P. Mulligan, and Richard J. Christopherson.

- 4490 Epidermal Growth Factor Receptor-targeted Immunophotodiagnosis and Photothermalotherapy of Oral Precancer in Vivo.** Nikolas S. Soukos, Michael R. Hamblin, Suzanne Keel, Richard L. Fabian, Thomas F. Deutsch, and Tayyaba Hasan.

- 4497 Synergy of Vaccine Strategies to Amplify Antigen-specific Immune Responses and Antitumor Effects.** Douglas W. Grossenbach, Jacqueline C. Barrientos, Jeffrey Schlom, and James W. Hodge.

Molecular Biology & Genetics

- 4506 Molecular Cytogenetic Characterization of Head and Neck Squamous Cell Carcinoma and Refinement of 3q Amplification.** Bhuvanesh Singh, Swarna K. Gognani, Peter G. Sacks, Ashok R. Shah, Jatin P. Shah, Archontola Stoffel, and Palvathsri Rao.

- 4514 High-Throughput Tissue Microarray Analysis of 3p25 (RAF1) and 8p12 (FGFR3) Copy Number Alterations in Human Lung Adenocarcinoma Tissues.** Svenja J. Richter, Urs Wagner, André Fijalk, James Bradner, Ulrich Schmid, Daniel Ackermann, Robert Maier, Göran Alund, Hartmut Knüttgen, Marcus Rist, Kim Wilber, Manuel Ambartsumian, Franz Hering, Thomas Hardmeier, Andreas Schönberger, Renata Flury, Peter Jäger, Jean Luc Feuer, Peter Schraml, Holger Misch, Michael J. Mihatsch, Thomas Gasser, and Guido Sauter.

- 4520 Increased Gene Amplification in Immortal Rodent Cells Deficient for the DNA-dependent Protein Kinase Catalytic Subunit.** Chiara Mondello, Paolo Rebuzzini, Manuela Dolzan, Scott Edmonson, Guillermo E. Taccioli, and Elena Giuliano.

- 4526 Nuclear Factor- κ B Is Constitutively Active in C-Cell Carcinoma and Required for RET-induced Transformation.** Leopold Ludwig, Heidi Kessler, Martin Wagner, Cuong Hoang-Vu, Henning Dralle, Gudo Adler, Bernhard O. Böhm, and Roland M. Schmid.

- 4536 Detection of Differentially Expressed Genes in HeLa \times Fibroblast Hybrids Using Subtractive Suppression Hybridization.** Satoshi Nishizuka, Hinayuki Tsujimoto, and Eric J. Stanbridge.

- 4541 Extensive Somatic Microsatellite Mutations in Normal Human Tissue.** Sava Vilki, Jen-Luu Tsao, Anna Loukova, Minna Pyöhönen, Outi Viernia, Rinttu Herva, Lauri A. Aultonen, and Darryl Shibata.

- 4545 Microsatellite Marker Analysis in Screening for Hereditary Nonpolyposis Colorectal Cancer (HNPCC).** Amu Loukova, Kaja Eklund, Päivi Laiho, Reijo Salovaara, Paul Kristo, Järviö Järvinen, Jukka-Pekka Mecklin, Virpi Launonen, and Lauri A. Aultonen.

- 4550 Apoptotic Triggers Initiate Translocations within the *MLL* Gene Involving the Nonhomologous End Joining Repair System.** Christopher J. Bett, Michael J. Villalobos, Manuel Diaz, and Andrew T. M. Vaughan.

- 4556 Loss of Expression and Aberrant Methylation of the *CDH13* (H-Cadherin) Gene in Breast and Lung Carcinomas.** Kiyoji O. Toyooka, Shinichi Toyooka, Arvind K. Virmani, Ubudika G. Sathyaranayana, David M. Eibus, Michael Gilcrease, John D. Minna, and Adri F. Gazdar.

- 4561 *Atm* Knock-in Mice Harboring an In-frame Deletion Corresponding to the Human *ATM* 763del9 Common Mutation Exhibit a Variant Phenotype.** Kevin Spring, Simon Cross, Chung Li, Dianne Waters, Liat Ben-Seror, Paul Waring, Farida Ahangari, Shan-li Lu, Philip Chen, Yosef Misko, Carol Petersen, Graham Kay, Nechama I. Smorodinsky, Yosef Shilon, and Martin F. Lavin.

- 4569 PTEN Induces G₁ Cell Cycle Arrest and Decreases Cyclin D3 Levels in Endometrial Carcinoma Cells.** Xiaoyan Zhu, Chang-Hyuk Kwon, Peter W. Schlosshauer, Lora Hedrick Ellenson, and Suzanne J. Baker.

Tumor Biology

- 4576 Relative Expression of Progesterone Receptors A and B in Endometrial Cancers of the Endometrium.** Rebecca L. Arnett-Mansfield, Anna deFazio, Gerard V. Wain, Richard C. Jaworski, Karen Byth, Patricia A. Mote, and Christine L. Clarke.

- 4583 Overexpression of Protein HMGA1 Induces Cell Cycle Deregulation and Apoptosis in Normal Rat Thyroid Cells.** Monica Fedele, Giovanna Maria Pieroni, Maria Teresa Berlingeri, Sabrina Battista, Gustavo Baldassarre, Nikhil Munshi, Monica Dentice, Dimitris Thanos, Massimo Santoro, Giuseppe Viglietto, and Alfredo Fusco.

- 4591 Protein Kinase C δ -mediated Phosphorylation of α 6 β 4 Is Associated with Reduced Integrin Localization to the Hemidesmosome and Decreased Keratinocyte Attachment.** Addy Alt, Motoi Ohba, Luwei Li, Marina Garsbein, Adam Belanger, Mitchell F. Denning, Toshio Kuroki, Stuart H. Yuspa, and Tamar Tennenbaum.

- 4599 Effects of Overexpression of γ -Glutamyl Hydrolase on Methotrexate Metabolism and Resistance.** Peter D. Cole, Barton A. Kamen, Richard Gorlick, Debabrata Banerjee, Angela K. Smith, Elizabeth Magill, and Joseph R. Bertino.

- 4605 Overexpression of Sialyltransferase CMP-Sialic Acid:Galβ1,3GalNAc-R α 6-Sialyltransferase Is Related to Poor Patient Survival in Human Colorectal Carcinomas.** Frank Schneider, Wolfgang Kemmer, Wolfgang Haensch, Gudrun Franke, Stephan Gretschel, Uwe Karsten, and Peter Michael Schlag.

- 4612 Protein Kinase C α and Protein Kinase C δ Play Opposite Roles in the Proliferation and Apoptosis of Glioma Cells.** Ravinder Mandal, Ely Ashkenazi, Michal Blas, Ilana Kronfeld, Gilia Kazimirska, Guy Rosenthal, Felix Umansky, Patricia S. Lorenzo, Peter M. Blumberg, and Chaya Brodsky.

- 4620 Increased Expression of UDP-Galactose Transporter Messenger RNA in Human Colon Cancer Tissues and Its Implications in Synthesis of Thomsen-Friedenreich Antigen and Sialyl Lewis A/X Determinants.** Kensei Kumamoto, Yoshiaki Goto, Koji Sekkawa, Seiichi Takenoshita, Nobuhiro Ishida, Masao Kawakita, and Reiji Kanagai.

- 4628 Transcriptional Silencing of Cyclooxygenase-2 by Hyper-methylation of the 5' CpG Island in Human Gastric Carcinoma Cells.** Sang Hyun Song, Hyun-Soon Jong, Hyun Ho Choi, Hiroyasu Inoue, Tadashi Tanabe, Noe Kyung Kim, and Yung-Jae Bang.

- 4636 γ 1-Mediated Effect of Neuropeptide Y in Cancer: Breast Carcinomas as Targets.** Jean Claude Reubi, Mathias Gugger, Beatrice Waser, and Jean-Claude Schaefer.

Meeting Report

- 4642 Melanoma Biology and Progression.** Meenhard Herlyn, Soldano Ferrone, Ze'ev Ronai, John Finerty, Richard Peltrey, and Suresh Mohla.

Announcements

- Future Annual Meetings of the American Association for Cancer Research
Workshop on Pathobiology of Cancer
Workshop on Molecular Biology in Clinical Oncology
Workshop on Methods in Clinical Cancer Research
AACR Special Conferences in Cancer Research
Calendar of Events

Erratum

- J. Xu et al., Cancer Res. 61: 1563-1568, 2001

Corrections

- G. Warner et al., Cancer Res. 60: 4238-4244, 2000

Author Index

June 15, Number 12

Review

- 4651 Who Is the Boss in the Retinoblastoma Family? The Point of View of *Rb2/p130*, the Little Brother.** Marco G. Paggi and Antonio Giordano

Advances in Brief

- 4655 Hepanase Expression in Primary and Metastatic Pancreatic Cancer.** Alexander Kolopanos, Helmut Friess, Jörg Kierff, Xin Shi, Quan Liao, Iris Pecker, Israel Vlodavsky, Arthur Zimmerman, and Markus W. Buchler

- 4660 Prostate Stem Cell Antigen Is Overexpressed in Human Transitional Cell Carcinoma.** Nordine Amara, Ganesh S. Palapattu, Matthew Schrage, Zhenhan Gu, George V. Thomas, Fred Dorey, Jonathan Said, and Robert E. Reiter

- 4666 The Paired Box Domain Gene *PAX5* Is Fused to *ETV6/TEL* in an Acute Lymphoblastic Leukemia Case.** Giovanni Cazzaniga, Maria Daniotti, Sabrina Tosi, Giovanna Giudici, Alessandra Aloisio, Enrico Poligiani, Lyndal Keayney, and Andrea Bioldi

- 4671 NY-ESO-1 Expression and Immunogenicity Associated with Transitional Cell Carcinoma: Correlation with Tumor Grade.** Takashi Kurashige, Yuji Noguchi, Tatsuki Saka, Toshiro Ono, Yasuhiro Nagata, Achim Jungbluth, Gerd Ritter, Jian-Teng Chen, Elisabeth Stockert, Tomoyasu Tsushima, Hiromi Kumon, Lloyd J. Old, and Etsushi Nakayama

- 4675 Analysis of Circulating Tumor DNA in Plasma at Diagnosis and during Follow-Up of Lung Cancer Patients.** Gabriella Sozzi, Davide Come, Luigi Marani, Salvatore Lo Vullo, Luca Roz, Claudia Lombardo, Marco A. Pierotti, and Luca Taveggia

- 4679 Transforming Growth Factor- β Receptor Type I Gene Is Frequently Mutated in Ovarian Carcinomas.** Taiping Chen, Jason Triplett, Ben Dehner, Bernadette Hurst, Bruce Colligan, Jackson Pemberton, Jeremy R. Graff, and Julia H. Carter

- 4683 Human Prostate Cancer and Benign Prostatic Hyperplasia Molecular Dissection by Gene Expression Profiling.** Jun Luo, David J. Duggan, Yidong Chen, Jurga Savageot, Charles M. Ewing, Michael L. Bittner, Jeffrey M. Trent, and William B. Isaacs

- 4689 Promoter Hypermethylation of the DNA Repair Gene *O6-Methylguanine-DNA Methyltransferase* Is Associated with the Presence of G:C to A:T Transition Mutations in *p53* in Human Colorectal Tumorigenesis.** Manel Esteller, Rosa-Ana Risques, Mirella Toyota, Gabriel Capella, Victor Moreno, Miguel Angel Perinado, Stephen B. Baylin, and James G. Herman

Regular Articles

Carcinogenesis

- 4693 Prostate Carcinomas Developing in Transgenic Rats with SV40 T Antigen Expression under Prohormone Control Are Strictly Androgen Dependent.** Makoto Asamoto, Naomi Hikimatsu, Young-Man Cho, Satoru Takahashi, Yoshihisa Ikeda, Katsumi Imaida, and Tomoyuki Shirai

- 4701 Potentiation of Nitric Oxide-induced Apoptosis of MDA-MB-468 Cells by Farnesytransferase Inhibitor: Implications in Breast Cancer.** Shelia Pervin, Rajan Singh, Chia-Ling Gu, Hironori Edamatsu, Fuyushiko Tamanoi, and Gautam Chaudhari

Experimental Therapeutics

- 4707 Cytokine and Cyclooxygenase-2 Protein in Brain Areas of Tumor-bearing Mice With Prostanoid-related Anoxia.** Wenhua Wang, Christina Linnemann, Elisabeth Svahnberg, and Kent Lundholm

- 4716 Eradication of Colorectal Xenografts by Combined Radioimmunotherapy and Combretastatin A-4 3-O-Phosphate.** R. Barbara Pedley, Sally A. Hill, Geoffrey M. Boxer, Aiden A. Flynn, Robert Biden, Rebecca Watson, Jason Dearling, David J. Chapman, and Richard H. J. Beger

- 4723 Apoptosis Induction in Cancer Cells by a Novel Analogue of 6-(3'-1-Adamantanyl)-4-hydroxyphenyl-2-naphthaleneacrylic Acid Lacking Retinoid Receptor Transcriptional Activation Activity.** Marcia J. Dawson, Peter D. Hobbs, Valerie J. Peterson, Mark Leid, Christopher W. Lange, Kai-Chia Feng, Guo-quan Chen, Jian Gu, Hui Li, Siva Kumar Kolluri, Xiao-kun Zhang, Yuxiang Zhang, and Joseph A. Fontana

Advances in Brief

- 4937 Extraction of 5-Fluorouracil by Tumor and Liver: A Noninvasive Positron Emission Tomography Study of Patients With Gastrointestinal Cancer.** Eric O. Abouzeid, Azem Salem, Vincent J. Cunningham, Safie Osman, and Patricia M. Price

- 4942 Mutations of Tumor Necrosis Factor-related Apoptosis-inducing Ligand Receptor 1 (*TRAIL-R1*) and Receptor 2 (*TRAIL-R2*) Genes in Metastatic Breast Cancer.** Min Sun Shin, Hong Sung Kim, Sung Hyung Lee, Won Sang Park, Su Young Kim, Jik Young Park, Jong Heun Lee, Sang Kyu Lee, Shi Nae Lee, Sang Seol Jeung, Ji Youn Han, Hyang Kim, Jung Young Lee, and Nam Jin Yoo

- 4947 Loss of Imprinting of Insulin-like Growth Factor-II in Wilms' Tumor Commonly Involves Altered Methylation but Not Mutations of *CTCF* or Its Binding Site.** Hengmi Cui, Emily L. Nemitz, Jason D. Ravanel, Patrick Onyango, Sheri A. Brandenburg, Victor V. Lobanenkov, and Andrew P. Feinberg

- 4951 Structural Analysis of the 17q22-23 Amplicon Identifies Several Independent Targets of Amplification in Breast Cancer Cell Lines and Tumors.** Guo-jun Wu, Colleen Sinclair, Shannon Hinson, James N. Ingle, Patrick C. Roche, and Fergus J. Couch

- 4956 Formation of Intracranial Tumors by Genetically Modified Human Astrocytes Defines Four Pathways Critical in the Development of Human Astrocytoma.** Yukihiko Sonoda, Tomoko Ozawa, Yuichi Hirose, Ken D. Alpaugh, Martin McMahon, Michel S. Berger, and Russell O. Pieper

9027

CONTENTS OF VOLUME 61

CONTENTS OF VOLUME 61

CONTENTS OF VOLUME 61

- 4731 Resveratrol Induces Extensive Apoptosis by Depolarizing Mitochondrial Membranes and Activating Caspase-9 in Acute Lymphoblastic Leukemia Cells.** Jan Dörrie, Harald Gerauer, Yvonne Wachter, and Susan J. Zunino
- 4740 The Cell Transmembrane pH Gradient in Tumors Enhances Cytotoxicity of Specific Weak Acid Chemotherapeutics.** Sergey V. Kozin, Pavel Shkarin, and Leo E. Gerweck
- 4744 Trastuzumab (Herceptin), a Humanized Anti-HER Receptor Monoclonal Antibody, Inhibits Basal and Activated HER2 Extracellular Cleavage in Breast Cancer Cells.** Miguel A. Molina, Jordi Codony-Servat, Joan Albane, Federico Rojo, Joaquín Arribas, and Jose Baselga

Immunology

- 4750 High Affinity Restricts the Localization and Tumor Penetration of Single-Chain Fab Antibody Molecules.** Gregory P. Adams, Robert Schier, Adrian M. McCall, Heidi S. Simmons, Eva M. Horak, R. Katherine Alpaugh, James D. Marks, and Louis M. Weiner
- 4756 Activated Granulocytes and Granulocyte-derived Hydrogen Peroxide Are the Underlying Mechanism of Suppression of T-cell Function in Advanced Cancer Patients.** Jan Schmidlin and Olivera J. Finn
- 4761 Generation of Cytotoxic T Lymphocytes against Native and Altered Peptides of Human Leukocyte Antigen *A1020* Restricted Epitopes from the Human Epithelial Cell Adhesion Molecule.** Andreia Trejao, Mathias Witzens, Joachim L. Schulz, Helge R. Vondeker, Sabine Haring, Angela M. Krachardt, Rolf A. Stahel, and John G. Grubben
- 4766 Regulatory CD4 $^{+}$ CD25 $^{+}$ T Cells in Tumors from Patients with Early-Stage Non-Small Cell Lung Cancer and Late-Stage Ovarian Cancer.** Edward Y. Woo, Christine S. Chu, Theresa J. Goetzl, Kata Schlinger, Heidi Yeh, George Coukos, Stephen C. Rubin, Larry R. Kaiser, and Carl H. June
- 4773 Tumor-reactive T Helper Lymphocytes Recognize a Promiscuous MAGE-A3 Epitope Presented by Various Major Histocompatibility Complex Class II Alleles.** Hiroya Kobayashi, Yongsheng Song, Dave S. Hoon, Etienne Appella, and Esteban Celis

Molecular Biology and Genetics

- 4779 Transduction of Antisense Cyclin D1 Using Two-step Gene Transfer Inhibits the Growth of Rat Hepatoma Cells.** Hirofumi Uto, Akio Ido, Akirho Moruchi, Yukiko Onaga, Kenji Nagata, Masaki Ogata, Yoshihiro Tahara, Takeshi Hori, Shuichi Hirota, Katsuhiro Hayashi, and Hirofumi Tsuobuchi
- 4784 Limitations of the Reporter Green Fluorescent Protein under Simulated Tumor Conditions.** Claudia Corallini, Maja Cemazar, Chryso Kanthou, Gillian M. Tozer, and Gabi U. Dachs
- 4791 A Novel Mechanism for Chaperone-mediated Telomerase Regulation during Prostate Cancer Progression.** Ali Karali, Lynne W. Elmore, Heidi L. Forsby, Barbara A. Amaker, Eric D. McCullum, Peter S. Nelson, Joy L. Ware, and Heidi L. Forsby
- 4797 Molecular Profiling of Transformed and Metastatic Murine Squamous Carcinoma Cells by Differential Display and cDNA Microarray Reveals Altered Expression of Multiple Genes Related to Growth, Apoptosis, Angiogenesis, and the NF- κ B Signal Pathway.** Gang Dong, Elena Loukinova, Zheng Chen, Lisa Gangi, Tatjana I. Chanturija, Edison T. Liu, and Carter Van Wais
- 4809 *MAGE-E1*, a New Member of the Melanoma-associated Antigen Gene Family and Its Expression in Human Gloma.** Manabu Sakata, Kensei Nakahara, Yuzo Kawano, Hiromichi Kataoka, Toshiaki Ishimori, Keiji Shimizu, Seung U. Kim, and Kazuhiko Benza
- 4815 *VHL* and *FHIT* Locus Loss of Heterozygosity Is Common in All Renal Cancer Morphotypes But Differs in Pattern and Prognostic Significance.** Marja Velickovic, Brett Delahunt, Stephan Strelak, and Stefan K. G. Grebe
- 4820 Cytosine Methylation Represses Glutathione S-Transferase P1 (*GSTP1*) Gene Expression in Human Prostate Cancer Cells.** Rakesh Singal, Jane van Wert, and Monaj Bashashati
- 4827 Fragile Histidine Triad Expresses Delay Tumor Development and Induces Apoptosis in Human Pancreatic Cancer.** Kristoffel R. Dumon, Hideshi Ishii, Andrea Vecchione, Francesco Trapasso, Gustavo Baldassarre, Fatima Chakrani, Teresa Druck, Ernest F. Rosato, Noel N. Williams, Raffaele Baffa, Matthew J. Durig, Kay Hubener, and Carlo M. Croce
- 4837 Induction of Apoptosis and Suppression of Human Ovarian Tumor Growth *in Vitro* by Down-Regulation of *Bcl-XL*.** Andrea Frankel, Kirill Rosen, Jorge Filus, and Robert S. Kerbel

July 1, Number 13

- 4961 Epithelial Cancer Cell Migration: A Role for Chemokine Receptors?** Chris J. Scotton, Julia L. Wilson, David Milliken, Gordon Stamp, and Frances R. Balkwill
- 4966 Dynamic Micro-Magnetic Resonance Imaging of Liver Micrometastasis in Mice with a Novel Liver Macromolecular Magnetic Resonance Contrast Agent DAB-Am64-(184M-Gd) $_{144}$.** Hisataka Kobayashi, Tsuneo Saga, Satomi Kawamoto, Noriko Sato, Akira Hiraga, Takeyoshi Ishimori, Junji Konishi, Kaori Togashi, and Martin W. Brechbiel
- 4971 Monitoring Response to Convection-enhanced Taxol Delivery in Brain Tumor Mice Using Diffusion-weighted Magnetic Resonance Imaging.** Yael Martor, Yiftach Roth, Zvi Lidar, Talia Jonas, Raphael Pfeffer, Stephan E. Maier, Meir Faibel, Dvorah Nass, Moshe Hadani, Arie Oreinstein, Jack S. Cohen, and Zvi Ram
- 4974 The Tumor Suppressor Candidate p31 NGF1 Mediates Repair of UV-Damaged DNA.** K-John Cheung Jr., David Mitchell, Paul Lin, and Gang Li
- 4978 Loss of Focal Adhesion Kinase (FAK) Inhibits Epidermal Growth Factor Receptor-dependent Migration and Increases Aggregation of NH₂-Terminal FAK in the Nuclei of Apoptotic Glioblastoma Cells.** Graham Jones, Joel Machado, and Jérôme Merle
- 4982 Polymorphisms in the Prostate Cancer Susceptibility Gene *HPC2/ELAC2* in Multiplex Families and Healthy Controls.** Brian K. Suarez, Daniela S. Gerber, Jennifer Lin, Beth Haberer, Loan Nguyen, Niki K. Kesterson, and William J. Catalona
- 4985 Regulation of PTEN Binding to MAGI-2 by Two Putative Phosphorylation Sites at Threonine 382 and 383.** Tatjana Tokacheva, Manoranjan Boddupalli, Anthony Sanzil, Kunihiro Tsuichida, Alec C. Kimmelman, and Andrew M-L Chan

- 4982 Homolog-directed DNA Repair, Mitomycin-C Resistance, and Chromosome Stability Is Restored with Correction of a *Braf* Mutation.** Mary Ellen Moysahan, Tracy Y. Cui, and Maria Jasins

Tumor Biology

- 4985 The Role of Thomsen-Friedenreich Antigen in Adhesion of Human Breast and Prostate Cancer Cells to the Endothelium.** Vladislav V. Glinsky, Gennadi V. Glinsky, Kite Rittenhouse-Olson, Margaret E. Hufnagl, Olga V. Glinskaya, Susan L. Deutscher, and Thomas P. Quinn
- 4988 Tetrasomy Is Induced by Human Papillomavirus Type 18 E7 Gene Expression in Keratinocyte Raft Cultures.** Shirley A. Southern, Francisco Noya, Craig Meyers, Thomas R. Broker, Louise T. Chow, and C. Simon Herrington
- 4989 Fas-mediated Apoptosis in Neuroblastoma Requires Mitochondrial Activation and Is Inhibited by FLICE Inhibitor Protein and bcl-2.** Vasiliiki Poulikaki, Nicholas Missiades, Maria E. Romero, and Maria Tsokos
- 4993 In Vivo Molecular Imaging of Met Tyrosine Kinase Growth Factor Receptor Activity in Normal Organs and Breast Tumors.** Miriam Shahanshahi, Rinat Abramovich, Tammar Kushner, Galia Tsarfary, Michael Ravid-Megged, Judith Horev, Rotem Ron, Yaakov Itzchak, and Ilan Tsarfary
- 4997 Nonsteroidal Anti-Inflammatory Drugs Induce Apoptosis in Esophageal Cancer Cells by Restoring 15-Lipoxygenase-1 Expression.** Imad Shureiqi, Xiaochun Xu, Dongming Chen, Reuben Lotan, Jeffrey S. Morris, Susan M. Fischer, and Scott M. Lippman

- 4998 Inhibition of Epidermal Growth Factor-induced RhoA Translocation and Invasion by Human Pancreatic Cancer Cells by 3-Hydroxy-3-methylglutaryl-coenzyme A Reductase Inhibitors.** Yoshiyuki Kusumoto, Mutsuko Mokai, Teruo Iwasaki, Masaharu Tatuta, Yoshinori Matsumoto, Hitoshi Akedo, and Hiroyuki Nakamura
- 5002 Down-Regulation of the erbB-2 Receptor by Trastuzumab (Herceptin) Enhances Tumor Necrosis Factor-related Apoptosis-inducing Ligand-mediated Apoptosis in Breast and Ovarian Cancer Cell Lines that Overexpress erbB-2.** Mauricio Cuello, Seth A. Ettinger, Amy S. Clark, Maccon M. Keane, Reuben H. Posner, Marion M. Nau, Phillip A. Dennis, and Stan Lipkowitz

- 5001 Constitutive bcl-2 Kinase Activity Correlates with Nuclear Factor- κ B Activation in Human Melanoma Cells.** Jimming Yang and Ann Richardson

- 5010 c-myb/p53 Interaction Determines Sensitivity of Human Colon Carcinoma Cells to 5-FU/uracil in *In Vitro* and *In Vivo*.** Diego Arango, Georgia A. Corner, Scott Wadler, Paul J. Catalano, and Leonard H. Augenlicht

- 5016 A Novel *N-ras* Mutation in Malignant Melanoma Is Associated with Excellent Prognosis.** Anouk Demmerle, Mohammad Reza Ahmadian, Louis Libbrecht, Marguerite Stas, Mathijs Baens, Klaus Scheffzek, Hugo Degreef, Chris De Wolf-Peeters, and Joost J. van den Oord

Special Article

- 4923 A White Paper: The Product of a Pancreas Cancer Think Tank.** Scott Kern, Ralph Hruban, Michael A. Hollingsworth, Randall Brand, Thomas E. Adrian, Elizabeth Jaffee, and Margaret A. Temperton

4933 Announcements

- Future Annual Meetings of the American Association for Cancer Research
Workshop on Pathobiology of Cancer
Workshop on Molecular Biology in Clinical Oncology
Workshop on Methods in Clinical Cancer Research
AACR Special Conferences in Cancer Research
Calendar of Events

4935 Errata

- P. Dubey et al., *Cancer Res.* 61: 3256-3261, 2001
Y. Sumanami et al., *Cancer Res.* 61: 1776-1780, 2001

4936 Author Index

- 4990 DNA Damage-activated Kinase Chk2 Is Independent of Proliferation or Differentiation Yet Correlates with Tissue Biology.** Claudia Lukas, Jirina Bartkova, Lucia Letellier, Jacob Falk, Niels Mailand, Tine Schroeder, Maxwell Schested, Jiri Lukas, and Jiri Bartek

Regular Articles

Biochemistry and Biophysics

- 4994 Runx-related Gene 2 in Endothelial Cells: Inducible Expression and Specific Regulation of Cell Migration and Invasion.** Lixin Sun, Michele Vitolo, and Antonino Passanti

Carcinogenesis

- 5002 Inhibitory Effects of Orally Administered Green Tea, Black Tea, and Caffeine on Skin Carcinogenesis in Mice Previously Treated with Ultraviolet B Light (High-Risk Mice): Relationship to Decreased Fisetin Fatty Acid.** Yao-Ping Lu, You-Rong Lou, Yong Lin, Weichung Joe Shih, Mu-Tuan Huang, Chung S. Yang, and Allan H. Conney

- 5010 Qualitative and Quantitative Relationship between Dysplastic Aberrant Crypt Foci and Tumorigenesis in the *Mut*+/+ Mouse Colon.** Jan Erik Paaske, Inger-Lise Steffensen, Else Marie Laberg, Trine Husøy, Ellen Namork, and Jørn Alexander

- 5016 Hepatic Hyperplasia in Noncirrhotic Fatty Livers: Is Obesity-related Hepatic Steatosis a Premalignant Condition?** ShiQi Yang, Hui Zhi Lin, Juwen Hwang, Vadappuram P. Chacko, and Anna Mac Diehl

CONTENTS OF VOLUME 61

Clinical Investigations

- 5024** Tubulin Detyrosination Is a Frequent Occurrence in Breast Cancers of Poor Prognosis. Agnès Mialis, Laurence Lafanechère, Isabelle Trélitoux, Nadine Pekoux, Charles Dumontet, Alain Brémond, Meng-Hong Panh, Raoul Payan, Jürgen Wehland, Robert-Louis Margolis, and Didier Job.

- 5028** Increased Level of Stromal Cell-Derived Factor-1 mRNA in Peripheral Blood Mononuclear Cells from Children with AIDS-related Lymphoma. Shizuko Sei, Dennis P. O'Neill, Sean K. Stewart, Quan-on Yang, Mutsuko Kumagai, Anne Marie Bolter, Melissa A. Adele, Sheryl L. Zwierski, Lauren V. Wood, David J. Venzon, and Ian T. Magrath.

Endocrinology

- 5038** Conversion from a Paracrine to an Autocrine Mechanism of Androgen-stimulated Growth during Malignant Transformation of Prostatic Epithelial Cells. Jin Gao, Julia T. Arnold, and John T. Isaacs.
- 5045** Soy Diets Containing Varying Amounts of Genistein Stimulate Growth of Estrogen-dependent (MCF-7) Tumors in a Dose-dependent Manner. Clinton D. Alfred, Kimberly F. Alfred, Young H. Ju, Suzanne M. Virant, and William G. Helfrich.

Epidemiology and Prevention

- 5051** Association of NAT1 and NAT2 Polymorphisms to Urinary Bladder Cancer: Significantly Reduced Risk in Subjects with NAT1*10. Ingolf Cascorbi, Ivor Roots, and Jürgen Brockmöller.

Experimental Therapeutics

- 5057** Inhibition of Fibroblast Growth Factor-2-induced Vascular Tumor Formation by the Acyclic Nucleotide Phosphonate Cidofovir. Sandra Liekens, Johan Neyts, Erik De Clercq, Erik Verbeken, Domenico Ribatti, and Marco Presta.

- 5065** Zinc-65 Imaging of Rat Brain Tumors. Atsushi Takeda, Haruna Tamano, Shuichi Enomoto, and Naoto Oku.

- 5070** Lowering the Isoelectric Point of the Fv Portion of Recombinant Immunotoxins Leads to Decreased Nonspecific Animal Toxicity without Affecting Antitumor Activity. Masanori Ono, Satoshi Nagata, Yasuo Tsutsumi, James J. Vincent, Qing-cheng Wang, Robert J. Kreitman, Byungkook Lee, and Ira Pastan.

- 5078** Sensitization of Human Tumor Cells to CPT-11 via Adrenomediated Delivery of a Rabbit Liver Carboxylesterase. Monika Wierdl, Christopher L. Morton, James K. Weeks, Mary K. Danks, Linda C. Harris, and Philip M. Potter.

- 5083** A Virus-directed Enzyme Prodrug Therapy Approach to Purging Neuroblastoma Cells from Hemopoietic Cells Using Adenovirus Encoding Rab-11 Carboxylesterase and CPT-11. Manly M. Meck, Monika Wierdl, Lars M. Wagner, Rebecca A. Burger, Sylvie M. Guichard, Erik J. Knoll, Linda C. Harris, Philip M. Potter, and Mary K. Danks.

- 5090** Acquired Resistance to the Antitumor Effect of Epidermal Growth Factor Receptor-blocking Antibodies *In Vivo*: A Role for Altered Tumor Angiogenesis. Alicia Viloria-Petit, Tanja Cromber, Sergio Jothy, Daniel Hicklin, Peter Bohlen, Jean Marc Schlaepfer, Janusz Rak, and Robert S. Kerbel.

- 5102** N-6-Hydroxyphenylretinamide Elevates Ceramide in Neuroblastoma Cell Lines by Coordinate Activation of Serine Palmitoyltransferase and Ceramide Synthase. Hongtao Wang, Barry J. Maurer, C. Patrick Reynolds, and Myles C. Cabot.

- 5106** Pharmacological Inhibitors of the Mitogen-activated Protein Kinase (MAPK) Kinase/MAPK Cascade Interact Synergistically with UCN-01 to Induce Mitochondrial Dysfunction and Apoptosis in Human Leukemia Cells. Yun Dai, Chunrong Yu, Victor Singh, Lin Tang, Zhihang Wang, Robert McNulty, Paul Dent, and Steven R. Kerbel.

- 5116** Retrovirus-mediated Expression of the Basic Excision Repair Proteins, Formamidopyrimidine DNA Glycosylase or Human Oxoguanine DNA Glycosylase, Protects Hematopoietic Cells from N,N'-Tritylbenzothiophosphoramidate (thioTEPA)-induced Toxicity *In Vitro* and *In Vivo*. Masayoshi Kubone, Yí Xu, Christopher Baum, Mark R. Kelley, and David A. Williams.

Advances in Brief

- 5331** Frequent Loss of Estrogen Receptor- β Expression in Prostate Cancer. Lisa G. Horvath, Susan M. Henshall, C-Soon Lee, Darren R. Head, David I. Quinn, Sari Makela, Warick Delprado, David Golovsky, Phillip C. Brenner, Gordon O'Neill, Raji Kooser, Phillip D. Stricker, John J. Grygiel, Jan-Ake Gustafsson, and Robert L. Sutherland.

- 5336** Comparative Analyses of Transgene Delivery and Expression in Tumors Infected with a Replication-conditional or Defective Viral Vector. Tomotsugu Ichikawa and E. Antonio Chiocca.

- 5340** Amplification of Urokinase Gene in Prostate Cancer. Merja A. Helenius, Outi R. Saranaki, Marika J. Linja, Teuvo L. J. Tammiela, and Tapio Visakorpi.

- 5345** Amplification of HER-2/neu and Topoisomerase II α in Primary and Metastatic Breast Cancer. Minna Tanner, Päivi Järvinen, and Jorma Isola.

- 5349** Growth Suppression of Intracranial Xenografted Glioblastomas Overexpressing Mutant Epidermal Growth Factor Receptors by Systemic Administration of Monoclonal Antibody 806, a Novel Monoclonal Antibody Directed to the Receptor. Kazuhiko Mishina, Terrence G. Johns, Rodney B. Lauar, Andrew M. Scott, Elisabeth Stockert, Achim A. Jungbluth, Xiang-Dong Ji, Padma Suvarna, Joseph R. Voland, Lloyd J. Old, H.J. Su Huang, and Webster K. Cavenee.

- 5355** Monoclonal Antibody 806 Inhibits the Growth of Tumor Xenografts Expressing Either the d2z or Amplified Epidermal Growth Factor Receptor (EGFR) but not Wild-Type EGFR. Royce D. Lowy, Terrence G. Johns, Carmel Munroe, H.J. Su Huang, Webster K. Cavenee, Ged Ritter, Lloyd J. Old, Antony W. Burgess, and Andrew M. Scott.

- 5362** Reduced Expression and Impaired Kinase Activity of a Chk2 Mutant Identified in Human Lung Cancer. Shuhei Matsuka, Taku Nakagawa, Akira Masuda, Nobuhiko Hanuki, Stephen J. Ellidge, and Takashi Takahashi.

- 5366** DNA Polymerase κ , Implicated in Spontaneous and DNA Damage-induced Mutagenesis, Is Overexpressed in Lung Cancer. Jiayang O-Wang, Kyoko Kawamura, Taji Tada, Haruo Ohmori, Hideki Kimura, Shigeru Sakiyama, and Masatoshi Tagawa.

Immunology

- 5126** Immunosuppressive Effects of ^{131}I -Anti-CD45 Antibody in Un sensitized and Donor Antigen-preserved H2-matched, Minor Antigen-mismatched Murine Transplant Models. Katherine L. Ruffner, Paul J. Martin, Scott Russell, Cynthia Nourigat, Darrell R. Fisher, Irwin D. Bernstein, and Dana C. Matthews.

- 5132** Proliferative Activity of Intratumoral CD4 $^+$ T-lymphocytes As a Prognostic Factor in Human Renal Cell Carcinoma: Clinicopathologic Demonstration of Antitumor Immunity. Osamu Nakano, Makoto Sato, Yoshitaka Naito, Kenichi Suzuki, Seiichi Orikasa, Masataka Aizawa, Yasuyoshi Suzuki, Ichiro Shintaku, Hiroshi Nagura, and Haruo Ohtani.

- 5137** Kitostatin Inactivates Signal Transducer and Activation of Transcription 3 (STAT3) Activity in B-Cell Hodgkin's Lymphoma through Inhibition of the Interleukin 10 Autocrine/Paracrine Loop and Results in Down-regulation of Bcl-2 and Sensitization to Cytotoxic Drugs. Steve Alais and Benjamin Bonavida.

- 5145** Somatically Mutated Regions of Immunoglobulin on Human B-Cell Lymphomas Code for Peptides That Bind to Autologous Major Histocompatibility Complex Class I, Providing a Potential Target for Cytotoxic T Cells. Clair S. Gricks, Ezra Kawaling, Letizia Foroni, J. Alejandro Madrigal, and Peter L. Amrolia.

- 5153** Combinatorial Peptide Libraries as an Alternative Approach to the Identification of Ligands for Tumor-reactive Cytolytic T Lymphocytes. Clemencia Pinilla, Verena Rubio-Godoy, Valeria Dutoit, Philippe Guillaume, Richard Simon, Yingding Zhao, Richard A. Houghton, Jean-Charles Cerottini, Pedro Romero, and Daniela Valmori.

- 5161** Identification of T Helper Epitopes from Prostacyclin Acid Phosphatase. Douglas G. McNeil, Lan D. Nguyen, and Mary L. Disis.

Molecular Biology and Genetics

- 5168** Identification of Gene Expression Profiles That Predict the Aggressive Behavior of Breast Cancer Cells. Deborah A. Zajchowski, Marty F. Bartholdi, Yan Susan Harvey, Stephen P. Ehrhart, and Paul J. Johnson.

- 5179** Constitutional Genomic Instability with Inversions, Duplications, and Amplifications in *Snp2-3* in *BRCAl* Mutation Carriers. Lanna Savelava, Andreas Claas, Isabel Matzner, Peter Schlagn, Wera Hofmann, Siegfried Schermbeck, Barbara Weber, and Manfred Schwab.

- 5186** Genetic Evidence for Early Divergence of Small Functioning and Nonfunctional Endocrine Pancreatic Tumors: Gain of *Q934* Is an Early Event in Insulommas. Ernst J. A. Speel, Alexander F. Scheideler, Jianming Zhao, Claudia Matter, Parvin Saremaslani, Jürgen Roth, Philipp U. Heitz, and Paul Komminoth.

- 5193** Role of the hMLH1 DNA Mismatch Repair Protein in Fluoropyrimidine-mediated Cell Death and Cell Cycle Responses. Mark Meyers, Mark W. Wagner, Hwa-Shin Hwang, Timothy J. Kinsella, and David A. Boothman.

- 5202** Molecular Mechanisms of Transcriptional Control of *bcl-2* and *c-myc* in Follicular and Transformed Lymphomas. Magdalena Arcinas, Caroline A. Heckman, John W. Mewes, and Linda M. Boxer.

Tumor Biology

- 5207** Hyaluronan Synthase 3 Overexpression Promotes the Growth of TSU Prostate Cancer Cells. Ningfei Liu, Feng Gao, Zeqiu Han, Xueming Xu, Charles B. Underhill, and Luoping Zhang.

- 5215** Constitutive Activation of Hypoxia-inducible Genes Related to Overexpression of Hypoxia-inducible Factor-1 α in Clear Cell Renal Carcinomas. Michael S. Wiesener, Philine M. Münnich, Inna Berger, Neil V. Morgan, Jan Rogas, Andreas Schwert, Jan Steffen Jürgenssen, Gertrud Gruber, Patrick H. Maxwell, Stefan A. Löning, Ulrich Frei, Emanuele R. Maher, Hermann-Josef Grothe, and Kai-Uwe Eckardt.

- 5223** Global Analysis of Gene Expression in Invasion by a Lung Cancer Model. Jeremy J. Chen, Karen Peck, Tse-Ming Hong, Shuenn-Chen Yang, Yuh-Pyng Sher, Jin-Yuan Shieh, Reen Wu, Jing-Long Cheng, Steve R. Roffler, Cheng-Wen Wu, and Pan-Chyr Yang.

July 15, Number 14

- 5370** Cloning and Characterization of a Human Polyamine Oxidase That Is Inducible by Polyamine Analogue Exposure. Yalin Wang, Wendy Devereux, Patrick M. Woster, Tracy Murray Stewart, Amy Hacker, and Robert A. Casero, Jr.

- 5374** Fusion of the Homeobox Gene *HLXB9* and the *ETV6* Gene in Infant Acute Myeloid Leukemias with the t(17;12)(q13;p13). H. Bernd Beierstorff, Joannis Papageorgiou, Magaret Isaksson, Elisabeth van Wering, Ellen van Drunen, Annelies de Klein, Bertil Johansson, and Rosalyn Slater.

- 5378** Repair of 8-Oxoguanine Lesions in Mitochondrial DNA Depends on the Oxoguanine DNA Glycosylase (OGG1) Gene and 8-Oxoguanine Accumulates in the Mitochondrial DNA of OGG1-defective Mice. Nadja C. de Souza-Pinto, Lars Eide, Barbara A. Hogue, Thanya Thybo, Timo Stevnsner, Erling Seerberg, Arne Klungland, and Vilhelm A. Bohr.

Regular Articles

Biochemistry & Biophysics

- 5382** Overexpression of Mitochondrial Manganese Superoxide Dismutase Protects against Radiation-induced Cell Death in the Human Hepatocellular Carcinoma Cell Line HLE. Shigeatsu Mototori, Hideyuki J. Yamaga, Masasaki Ebara, Hirotsugu Kato, Futoshi Hirai, Shuzo Kakimoto, Chizuru Yamaguchi, Toshishiko Ozawa, Tetsuo Nagano, Hirofumi Tsuji, and Hiromitsu Saisho.

Carcinogenesis

- 5389** Hepatocellular Carcinoma Results from Chronic Cyclin D1 Overexpression in Transgenic Mice. Natasha, G. Deane, Monica A. Parker, Radhika Aramandla, Lisa Diehl, Woo-Jung Lee, M. Kay Washington, Lillian L. Nanney, Yu Shyr, and R. Daniel Beauchamp.

- 5396** Extremely Low-Dose Ionizing Radiation Causes Activation of Mitogen-activated Protein Kinase Pathway and Enhances Proliferation of Normal Human Diploid Cells. Keiji Suzuki, Seiji Kodama, and Masami Watanabe.

- 5231** An Intact Overexpressed E-cadherin/ α -Catelin Axis Characterizes the Lymphovascular Emboli of Inflammatory Breast Carcinoma. James S. Tomlinson, Mary L. Alpaugh, and Sanford H. Barsky.

- 5242** Entry Routes of Malignant Lymphoma into the Brain and Eyes in a Mouse Model. Jacob Hochman, Nirit Assaf, Martina Decker-Schlierer, Omar D. Wiestler, and Jacob Pe'er.

- 5248** Influence of $\beta 1$ Integrins on Epidermal Squamous Cell Carcinoma Formation in a Transgenic Mouse Model: $\alpha 2\beta 1$, but not $\alpha 2\beta 1$, Suppresses Malignant Conversion. David M. Owens and Fiona M. Watt.

- 5255** Reduced Blood Vessel Formation and Tumor Growth in $\alpha 5$ -Integrin-negative Teratocarcinomas and Embryoid Bodies. Daniela Taverna and Richard O. Hynes.

- 5262** Carbonic Anhydrase IX, an Endogenous Hypoxia Marker. Expression in Head and Neck Squamous Cell Carcinoma and Its Relationship to Hypoxia, Necrosis, and Microvascular Density. Nigel J. P. Beasley, Charles C. Wykoff, Peter H. Watson, Russell Leek, Helen Turley, Kevin Gatter, Jaromir Pastorek, Graham J. Cox, Peter Ratcliffe, and Adrian L. Harris.

- 5268** Clonal Variation in the B-Lineage Acute Lymphoblastic Leukemia Response to Multiple Cytokines and Bone Marrow Stromal Cells. Nisha Shah, LeAnn Oseeth, Hien Tran, Betty Hirsch, and Tucker W. LeBlanc.

- 5275** A CD44 Survival Pathway Triggers Chemoresistance via Lyn Kinase and Phosphoinositide 3-Kinase/Akt. Richard C. Bates, Nathaniel S. Edwards, Gordon F. Burns, and David E. Fisher.

- 5284** Overexpression of *KAI1* Suppresses *In Vitro* Invasiveness and *In Vivo* Metastasis in Breast Cancer Cells. Xiaohong Yang, Lisa L. Wei, Careen Tang, Rebecca Slack, Susette Mueller, and Marc E. Lippman.

- 5289** Role of Iron in Tumor Cell Protection from the Pro-apoptotic Effect of Nitric Oxide. Frédéric Feger, Hélène Ferry-Dumazet, Maria Mamani-Matsuda, Joëlle Bordenave, Marie Dupuy, Andreas K. Nussler, Michel Attard, Lionel Devèze, Joëlle Nafziger, Jean-Jacques Guillousson, Josy Reiffers, and M. Djavald Mossaly.

- 5295** A Rare Premalignant Tumor Epithelial Cell Syndecan-1 Forms a Fibroblast Growth Factor-binding Complex with Progression-promoting Ectopic Fibroblast Growth Factor Receptor 1. Xiaochong Wu, Mikio Kan, Feng Wang, Chengjin Jin, Chundong Yu, and Wallace M. McKeehan.

- 5303** Promoter Hypermethylation: A Common Cause of Reduced *p16INK4a* Expression in Uveal Melanoma. Pieter A. van der Velden, Jessica A. W. Metzelaar-Blok, Wilma Bergman, H. Monique H. Hurks, Ruus Frants, Nelke A. Gruij, and Martine J. Jager.

- 5307** Mutational Analysis of the Peroxisome Proliferator-activated Receptor γ Gene in Human Malignancies. Takeshi Ikezoe, Carl B. Miller, Seiji Kawano, Anthony Henney, Elizabeth A. Williamson, Junichi Hisatake, Eric Green, Wolf Hoffmann, Hirokuni Taguchi, and H. Phillip Koefeler.

- 5311** The COOH-Terminal Domain of FLJ-1 Is Necessary for Full Tumorigenesis and Transcriptional Modulation by EWS/FGL-1. Afzaneh Arvand, Scott M. Wellford, Michael A. Teitel, and Christopher T. Denny.

- 5313** Effect of Changing Tumor Oxygenation on Glycolytic Metabolism in a Murine C3H Mammary Carcinoma Assessed by *In Vivo* Nuclear Magnetic Resonance Spectroscopy. Flemming U. Nielsen, Preben Daugard, Lis Bentzen, Hans Skardkjær-Jørgensen, Jens Overgaard, Michael R. Horsman, and Ross J. Maxwell.

5236 Announcements

- FUTURE ANNUAL MEETINGS OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH
WORKSHOP ON PATHOBIOLOGY OF CANCER
WORKSHOP ON METHODS IN CLINICAL CANCER RESEARCH
AACR SPECIAL CONFERENCES IN CANCER RESEARCH
RECENT DEATH
CALENDAR OF EVENTS

5328 Author Index

Clinical Investigations

- 5402** Functional Quantification of DNA-binding Proteins p53 and Estrogen Receptor in Cells and Tumor Tissues by DNA Affinity Immunoblotting. Yuangang Liu, Harold Asch, and Molly F. Kulesz-Martin.

- 5407** High Tumor Levels of Vascular Endothelial Growth Factor Predict Poor Response to Systemic Therapy in Advanced Breast Cancer. John A. Folkers, Harry P. Peters, Nikolai Grebenchikov, Maximine P. Look, Marion E. Meijer-van Gelder, Annetje Geurts-Moespot, Theo H. van der Kwast, C.G. J. (Fred) Sweep, and Jan G.M. Klijn.

Epidemiology and Prevention

- 5415** Red Meat, Family History, and Increased Risk of Gastric Cancer with Microsatellite Instability. Domenico Palli, Antonio Russo, Laura Ottini, Giovanna Masala, Calogero Seraiva, Andrea Amoruso, Alessandro Camà, Cristina D'Amico, Mario Falchetti, Raffaele Palmirotti, Adriano Decarli, Renato Mazzanti, Costantino, and Joseph F. Fraumeni, Jr.

- 5420** Modification of *BRCA1*- and *BRCA2*-associated Breast Cancer Risk by *AB1* Genotype and Reproductive History. Timothy R. Rebbeck, Yiting Wang, Philip W. Kantoff, Krishna Krishivas, Susan L. Neuhausen, Andrew K. Godwin, Mary B. Daly, Steven A. Narod, Jean-Sebastien Brunet, Daniel Vesprini, Judy E. Garber, Henry T. Lynch, Barbara L. Weber, and Myles Brown.

Experimental Therapeutics

- 5425** Inhibition of DNA Replication by Tirapazamine. Katherine B. Peters, Hongyan Wang, J. Martin Brown, and George Iliakis.

- 5432** Tumor Growth Inhibition by Arsenic Trioxide (As_2O_3) in the Orthotopic Metastasis Model of Androgen-independent Prostate Cancer. Hiroshi Maeda, Seiji Hori, Hideki Nishitoh, Hidenori Ichijo, Osamu Ogawa, Yoshiyuki Kakehi, and Akira Kazukawa.

CONTENTS OF VOLUME 61

- 5441 Effects of Angiotatin Gene Transfer on Functional Properties and *In Vivo* Growth of Kaposi's Sarcoma Cells.** Stefano Indraccolo, Monica Morini, Eleonor Giola, Fabio Carrozzino, Walter Haberl, Simona Manghelli, Leonardo Santi, Luigi Checco-Bianchi, Yihai Cao, Adriana Albinis, and Douglas M. Noiman.
- 5447 Multimodality Therapy with a Replication-conditioned Herpes Simplex Virus 1 Mutant that Expresses Yeast Cytidine Deaminase for Intratumoral Conversion of 5-Fluorocytosine to 5-Fluorouracil.** Hideo Nakamura, John T. Muller, Soundararajulu Chandrasekhar, Timothy M. Pawlik, Sam S. Yoon, and Kenneth K. Tanabe.
- 5453 CV706, a Prostate Cancer-specific Adenovirus Variant, in Combination with Radiotherapy Proves Synergistic Antitumor Efficacy without Increasing Tumor Cell Death.** Chien-Chang Chen, Michael J. DeWeese, Jeanne Dilley, Ywei-Zhang Yuanbo, Li Naqashan Ramesh, John Lee, Kenneth Pahmaran-Das, John Radzynski, Joseph Wypych, Dominic Brignani, Sara Scott, Jennifer Stephens, David B. Karpf, Daniel R. Henderson, and De-Chao Yu.
- 5461 Resistance to Mitoxantrone in Multidrug-resistant MCF7 Breast Cancer Cells: Evaluation of Mitoxantrone Transport and the Role of Mitotriplex Resistance Protein Family Proteins.** Sri K. Dhan, Pamela K. Smitherman, Jerry Aldridge, Erlin L. Volk, Erasmus Schmid, Alan J. Townsend, and Charles S. Morrow.
- 5468 Inhibition of Promyelocytic Leukemia (PML)/Retinoic Acid Receptor- α and PML Expression in Acute Promyelocytic Leukemia Cells by Anti-PML Peptide Nucleic Acid.** Luca Mologni, Edoardo Marchesi, Peter E. Nielsen, and Carlo Gambacorti-Passerni.
- 5474 8-Chloro-CAMP and 8-Chloro-Adenosine Act by the Same Mechanism in Multiple Myeloma Cells.** Varsha Gandhi, May Ayres, Robert G. Halgren, Nancy L. Krett, Robert A. Newman, and Steve T. Rosen.
- 5480 A-26197, a New Tubulin-binding Agent with Antimitotic Activity in Tumor Cell Lines Resistant to Known Microtubule Inhibitors.** Stephen K. Tahir, Edward K-H. Han, Bruce Credle, Hwan-Soo Joe, Jennifer A. Petropol, Caroline D. Scatena, Jinshun Wu-Wong, David Frost, Hing Sham, Saul H. Rosenberg, and Shi-Chung Ng.
- 5486 Triterpenoid Saponins from *Aesculus virescens* (Bentham) Decrease Tumor Cell Proliferation and Induce Apoptosis.** Kalpana Mujo, Valsala Haridas, Joseph J. Hoffmann, Gerald A. Wichter, Louis K. Hutter, Yiling Lu, Mary E. Blake, Gannini S. Jayatilake, David Bailey, Gordon B. Mills, and Jordan U. Gutierrez.
- 5491 Pharmacodynamic-mediated Reduction of Temozolomide Tumor Concentrations by the Angiogenesis Inhibitor TNP-470.** Jianguo Ma, Sharon Puffer, Shaolan Li, Jianxiong Chu, Karin Reed, and James M. Gallo.
- 5499 Tetra-O-methyl Nordihydroguaiaretic Acid Induces G2 Arrest in Mammalian Cells and Exhibits Tumoricidal Activity *In Vivo*.** Jonathan D. Heller, Jennifer Kao, T. C. Wu, W. Martin Kast, and Ru Chih C. Huang.
- 5505 Pharmacogenomic Dissection of Resistance to Thymidylate Synthase Inhibitors.** Weiguang Wang, Sharon Marsh, James Cassidy, and Howard L. McLeod.
- Immunology**
- 5511 Identification of Fibroblast Growth Factor-5 as an Overexpressed Antigen in Multiple Human Adenocarcinomas.** Ken-ichi Hanada, Donna M. Perry-Lalley, Galen A. Ohnmacht, Maria P. Bettinotti, and James C. Yang.
-
- Perspectives in Cancer Research
- 5683 Selective Estrogen Receptor Modulation: A Personal Perspective.** V. Craig Jordan.
- Advances in Brief
- 5688 PTEN-independent Induction of Caspase-mediated Cell Death and Reduced Invasion by the Focal Adhesion Targeting Domain (FAT) in Human Astrocytic Brain Tumors Which Highly Express Focal Adhesion Kinase (FAK).** Graham Jones, Joel Machado, Jr., Markus Tolaymi, and Adrian Merlo.
- 5692 Expression Profiling Reveals Hepin Overexpression in Prostate Cancer.** Jeffrey A. Magee, Yoshiaki Araki, Sushma Patil, Torsten Ehrig, Lawrence True, Peter A. Humphrey, William J. Catalona, Alan M. Watson, and Jeffrey Milbrandt.
- 5697 A SAGE (Serial Analysis of Gene Expression) View of Breast Tumor Progression.** Dale A. Potter, Ian E. Krop, Selim Nasser, Dennis Sgroi, Carolyn M. Kaclin, Jeffrey Marks, Gregory Riggins, and Komela Polyz.
- 5703 Overexpression of Id-1 Protein Is a Marker for Unfavorable Prognosis in Early-Stage Cervical Cancer.** Monika Schmidl, Georg Oberhuber, Andreas Obermaier, Sebastian F. Schoppmann, Barbara Karner, and Peter Birner.
- 5707 Daxin Suppresses the Checkpoint Protein, MAD2, by an Aryl Hydrocarbon Receptor-independent Pathway.** Konosuke Okawa, Tetsuya Ohbayashi, Junsei Mimura, Ryoko Iwata, Akemi Kameta, Kazumi Evine, Keiichi Iwaya, Yoshiaki Fuji-Kuriyama, Masahiko Kuroda, and Kiyoji Mukai.
- 5710 Modest Increases in Sensitivity to Radiation Oncogenesis in ATM Heterozygous versus Wild-Type Mammalian Cells.** Lubomir B. Smiljanov, David J. Brenner, and Eric J. Hall.
- 5714 Hepatocyte-derived Growth Factor Is Associated with Reduced Sensitivity to Irradiation in Esophageal Cancer.** Ayumi Matsuyama, Hiroshi Inoue, Kenji Shibuta, Yoichi Tabata, Graham F. Burnard, Keizo Sugimachi, and Masaki Mori.
- 5718 p53, CHKA, and CHKB Genes in Finnish Families with Li-Fraumeni Syndrome: Further Evidence of CHKA in Inherited Cancer Predisposition.** Pia Vahteroisto, Antti Tamminen, Petteri Karvinen, Hannaleena Eraho, Carita Eklund, Lauri A. Aaltonen, Carl Blomqvist, Kristina Autiovaara, and Heli Nevanlinna.
- 5723 Pragmatic Significance of Circulating Microsatellite Markers in the Plasma of Melanoma Patients.** Bret Taback, Yoshiaki Fujiwara, He-Jing Wang, Leland J. Foshag, Donald L. Morton, and Dave S. B. Hoon.
- 5727 Aberrant Methylation and Shallow Vitreous Tag Sequences in Malignant Melanoma.** Shinichi Toyooka, Harvey J. Pass, Nayan Shivapurkar, Yasuo Fukuyama, Richrich Manjana, Kiyomi O. Toyooka, Michael Gilcrease, Alfredo Farinas, John D. Minna, and Adi F. Gazdar.
- 5517 IgEs Targeted on Tumor Cells: Therapeutic Activity and Potential in the Design of Tumor Vaccines.** Eva Real, John W. Greiner, Angelo Corti, Hanah J. Gould, Federica Bottazzoli, Giovanni Paganelli, Jeffrey Schlom, and Antonio G. Siccardi.
- 5523 Antimetastatic Effect of CpG DNA Mediated by Type I IFN.** Michael Hafner, Rainer Zawatzky, Christian Hirteiter, Wim A. Buusman, Bernd Echtenacher, Thomas Hehligen, and Daniela N. Männel.
- Molecular Biology and Genetics**
- 5529 Human Telomerase Reverse Transcriptase Promoter Regulation in Normal and Malignant Human Ovarian Epithelial Cells.** Ilana Brauner, Ori Cohen-Terva, Yaelne Shachar, Yael Ravel, Michal Ilan-Yacobson, Gordon B. Mills, Maye Tzukerman, and Karl L. Shoreck.
- 5537 Redox Modulation of the Pro-fibrogenic Mediator Plasminogen Activator Inhibitor-1 Following Ionizing Radiation.** Weiling Zhao, Douglas R. Spitz, Larry W. Oberley, and Mike E. C. Robbins.
- 5544 An Overview of the MAGE Gene Family with the Identification of All Human Members of the Family.** Patrick Chomez, Olivier De Backer, Mathieu Bertrand, Etienne De Paele, Thierry Bonn, and Sophie Lucas.
- 5552 Heterozygosity for the Mouse Apex Gene Products in Response to Oxidative Stress.** Lisiane B. Meira, Sridevi Devaraj, Glen E. Kirby, Dennis K. Burns, Russell L. Daniel, Robert E. Hammer, Scott Grundy, Ishwarlal Jialal, and Erol C. Friedberg.
- 5558 Hypermethylation Leads to Silencing of the SYK Gene in Human Breast Cancer.** Yunte Yuan, Richard Mendez, Aysegul Sahin, and Jia Le Dai.
- Tumor Biology**
- 5562 Glycan-1 Is Overexpressed in Human Breast Cancer and Modulates the Mitogenic Effects of Multiple Heparin-binding Growth Factors in Breast Cancer Cells.** Kei Matsuda, Haruhisa Maruyama, Fang Guo, Jörg Kleeff, Jun Itakura, Yoshiro Matsumoto, Arthur D. Lander, and Murray Koffe.
- 5570 Detection of Peritoneal Micrometastases of Carcina Carcinoma with Green Fluorescent Protein and Carcinoembryonic Antigen Promoter.** Katsuhiro Matsuda, Masahiro Yamada, Tomoko Yamamoto, Hirofumi Miwa, Youko Akiyama, Masaki Taniguchi, Yoshiyuki Fujiwara, Yasuhiro Doki, Masatoshi Inoue, Hitoshi Shiozaki, Yasushi Kaneda, and Morito Monden.
- 5575 A Primary Tumor Promotes Dormancy of Solitary Tumor Cells before Inhibiting Angiogenesis.** Markus Guba, Grigore Cernea, Gudrun Koehl, Edward K. Geissler, Karl-Walter Jauch, Matthias Anthaber, Werner Falk, and Markus Steinbauer.
- 5580 Telomerase Inhibition in RenCa, a Murine Tumor Cell Line with Short Telomeres, by Overexpression of a Dominant Negative mTERT Mutant, Reveals Fundamental Differences in Telomerase Regulation between Human and Murine Cells.** James Sachsing, Eva González-Suárez, Enrique Samper, Rüdiger Heschlapp, Markus Müller, and María A. Blasco.
- 5587 Plasminogen Activator Inhibitor-1 Promotes Angiogenesis by Stimulating Endothelial Cell Migration toward Fibronectin.** Chiho Itoogai, Walter E. Lang, Hiroyuki Shimada, Paul J. Declerk, Monique F. Stins, Donald L. Durden, Anat Erlich-Epstein, and Yves A. DeClerck.
- 5595 High Glycolytic Activity in Rat Gloma Demonstrated *In Vivo* by Correlation ³¹P Magnetic Resonance Imaging.** Anne Ziegler, Markus von Kienlin, Michel Décorps, and Chantal Rémy.
-
- August 1, Number 15**
- 5731 HIF-1α-mediated Up-regulation of Vascular Endothelial Growth Factor, Independent of Basic Fibroblast Growth Factor, Is Important in the Switch to the Angiogenic Phenotype during Early Tumorigenesis.** Jianmin Fang, Li Yan, Yuen Shing, and Marsha A. Moses.
- 5736 Vascular Endothelial Growth Factor Is an Autocrine Survival Factor for Neuropilin-expressing Breast Carcinoma Cells.** Robin E. Bachelder, Aimée Crago, Jun Chung, Melissa A. Wendt, Leslie M. Shaw, Gregory Robinson, and Arthur M. Mercurio.
- Regular Articles**
- Biochemistry and Biophysics**
- 5741 A Monoclonal Antibody That Induces Neuronal Apoptosis Binds a Metastasis Marker.** Li-tao Zhong, Adriana Manzi, Evan Skowronski, Lucia Notterek, Arvan L. Fluharty, Kym F. Faull, Irene Masada, Shahrooz Rahizadeh, Maria Vasanyi-Nagy, Youlin Ruan, Justin D. Oh, Larry L. Butcher, and Dale E. Bredesen.
- Carcinogenesis**
- 5749 Two Novel Glycosides from the Fruits of *Morinda citrifolia* (Noni) Inhibit AP-1 Transactivation and Cell Transformation in the Mouse Epidermal JB6 Cell Line.** Guangming Liu, Ann Bode, Wei-Ya Ma, Shengming Sang, Ching Tang Ho, and Zenggang Dong.
- 5757 Interactions between Methylating and Pyridylethylating Agents in A/J Mouse Lungs: Implications for 4-(methyl-aziridino)-1-(3-pyridyl)-1-butane-induced Lung Tumorigenesis.** Lisa A. Peterson, Nicole M. Thomson, Daune L. Crankshaw, Elizabeth E. Donaldson, and Patrick J. Kenney.
- Endocrinology**
- 5764 Preferential Growth Stimulation of Mammary Glands over Uterus Endometrium in Female Rats by a Naturally Occurring Estradiol-17 β -fatty Acid Ester.** Laura H. Mills, Anthony J. Lee, A. P. Parlow, and Bao Ting Zhu.
- 5771 Expression of Estrogen Receptor α in Estrogen Receptor α -negative MCF-7 Cells Restores both Estrogen and Insulin-like Growth Factor-mediated Signaling and Growth.** Steffi Oesterreich, Ping Zhang, Rebecca L. Guler, Xiuhua Sun, Edward M. Curran, Wade V. Wilshons, C. Kent Osborne, and Adrián V. Lee.
- Experimental Therapeutics**
- 5778 Growth Inhibition of Dermatofibrosarcoma Protuberans Tumors by the Growth Inhibitor of Prostaglandin Receptor Antagonist ST1571 through Induction of Apoptosis.** Tobias Sjöblom, Akira Shimizu, Kevin P. O'Brien, Kristian Pietras, Paola Dal Cin, Elisabeth Buchdunger, Jan P. Dumanski, Arne Östman, and Carl-Henrik Heldin.
- 5784 Inhibition of Gloma Growth *In Vivo* by Selective Activation of the CB₂ Cannabinoid Receptor.** Cristina Sánchez, María L. de Cobos, Teresa Gómez del Pulgar, Daniel Rueda, César Corbacho, Guillermo Velasco, Israel Galve-Roperh, John W. Huffman, Santiago Ramón y Cajal, and Manuel Guzmán.
- 5790 Signaling-inactive Epidermal Growth Factor Receptor/Ligand Complexes in Intact Carcinoma Cells by Quinazoline Tyrosine Kinase Inhibitors.** Rosemarie B. Lichten, Andreas Menrad, Anette Sommer, Ulrich Klar, and Martin R. Schneider.
- 5796 Treatment of Malignant Gloma Cells with the Transfer of Constitutively Active Caspase-6 Using the Human Telomerase Catalytic Subunit (Human Telomerase Reverse Transcriptase) Gene Promoter.** Tadashi Komata, Yasuko Kondo, Takaaki Kanazawa, Satoshi Hinohara, Shoji Koga, Hideaki Sumiyoshi, Srinivasa M. Srinivasula, Barbara P. Barna, Isabelle M. Germano, Masahiro Kubo, Masaki Inoue, Edem A. Simeone, Jerry W. Shay, and Seiji Kondo.
- 5803 Multiple Microtubule Alterations Are Associated with Vinca Alkaloid Resistance in Human Leukemia Cells.** Maria Kavallaris, A. Saha Tait, Bradley J. Walsh, Lifeng He, Susan B. Horwitz, Murray D. Norris, and Michelle Haber.
- 5810 Differing Contribution of Thiopurine Methyltransferase to Mercaptopurine versus Thioguanine Effects in Human Leukemic Cells.** Thierry Dervieux, Javier G. Blasco, Eugene Y. Krynetski, Elo F. Vanin, Martine F. Roussel, and Mary V. Relling.
- 5817 Hemolin Triggers a CD95 Death Receptor-independent Apoptosis That Is Not Affected by Overexpression of Bcl-xL or Bcl-2.** Verena M. Dirsch, Hermann Stupper, and Angelika M. Vollmar.
- 5824 Antitumor Effect of 5-Aminolevulinic Acid-mediated Photodynamic Therapy Can Be Enhanced by Use of a Low Dose of Photoinitiator in Human Tumor Xenografts.** Qian Peng, Trond Warloe, John Moan, Aslak Godal, Fabio Appicea, Karl-Erik Gierschy, and John M. Nesland.
- 5833 Chimeric Tumor Suppressor 1, a g53-derived Chimeric Tumor Suppressor Gene, Kills g53 Mutant and p53 Wild-type Gloma Cells in Synergy with Irradiation and CD95 Ligand.** Ulrike Naumann, Sebastian Kügler, Hartwig Wolburg, Wolfgang Wick, Gesa Rascher, Jörg B. Schulz, Emmanuel Conseiller, Mathias Bähr, and Michael Weiler.
- 5843 Abrogation of the Chk1-mediated G2 Checkpoint Pathway Potentiates Temozolamide-induced Toxicity in a g53-independent Manner in Human Gloma Cells.** Yuichi Hirose, Mitchell S. Berger, and Russell O. Pieper.

Immunology

- 5850 Heterogeneous T-Cell Responses to MAGE-A1024–262: High-Avidity-Specific Cytotoxic T Lymphocytes Show Superior Antitumor Activity.** Valérie Vallet, Verena Kubo-Godin, Pierre-Yves Dietrich, Anne-Lise Quenneres, Valérie Scherzenig, Daniel Rimoldi, Danièle Lienard, Daniel Speiser, Philippe Guillaume, Pascal Batard, Jean-Charles Cerottini, Daniel Romero, and Daniela Valmoré.

- 5857 Murine Six-Transmembrane Epithelial Antigen of the Prostate, Prostate Stem Cell Antigen, and Prostate-specific Membrane Antigen: Prostate-Specific Cell-Surface Antigen Highly Expressed in Prostate Cancer of Transgenic Adrenocarcinoma Mouse Prostate Mice.** Danna Yang, Gregory E. Holt, Markwin P. Velders, Eugene D. Kwon, and W. Martin Kast.

Molecular Biology and Genetics

- 5861 Osteopontin Is an Autocrine Mediator of Hepatocyte Growth Factor-induced Invasive Growth.** Enzo Medicò, Alessandra Gentile, Cristina Lo Celso, Tracy A. Williams, Giovanna Gambirotta, Livio Trusolino, and Paolo M. Comoglio.

- 5869 Short Polyglutamine Tracts in the Androgen Receptor Are Protective against Breast Cancer in the General Population.** Yves Giguere, Eric Dewailly, Jacques Brisson, Pierre Ayotte, Nathalie Lafamme, Alain Demers, Véronique-Isabelle Forest, Jean Robert, and François Rousseau.

- 5875 Global and Gen-specific Epigenetic Patterns in Human Bladder Cancer Genomes Are Relatively Stable in Vivo and in Vitro over Time.** Isabel D.C. Markl, Jonathan Cheng, Gangning Liang, Darryl Shibata, Peter W. Laird, and Peter A. Jones.

- 5885 Regulation of the Catalase Gene Promoter by Sp1, CCAAT-recognizing Factors, and a WTI/Egr-related Factor in Hydrogen Peroxide-resistant HP100 Cells.** Mads Hald Andersen, Lars Ø. Pedersen, Barbara Capeller, Eva-Bettina Bröcker, Jürgen C. Becker, and Per Thor Straten.

Advances in Brief

- 5959 p14ARF Modulates the Cytolytic Effect of ONYX-015 in Mesothelioma Cells with Wild-type p53.** Cheng-Tu Yang, Liang Yu, Kazuhiro Uematsu, Che-Chung Yeh, Frank McCormick, and David M. Jablons.

- 5964 Spontaneous Cytotoxic T-Cell Responses against Survivin-derived MHC Class I-restricted T-Cell Epitopes in Siz As Well as ex Vivo in Cancer Patients.** Mads Hald Andersen, Lars Ø. Pedersen, Barbara Capeller, Eva-Bettina Bröcker, Jürgen C. Becker, and Per Thor Straten.

- 5969 A Novel Human Cell Culture Model for the Study of Familial Prostate Cancer.** Yutaka Yasunaga, Keiichiro Nakamura, Charles M. Ewing, William B. Isaacs, Bharati Hukki, and John S. Rhim.

- 5974 Analysis of Gene Expression Identifies Candidate Markers and Pharmacological Targets in Prostate Cancer.** John B. Walsh, Lisa M. Sapiro, Andrew J. Su, Suzanne G. Kern, Jessica Wang-Rodriguez, Christopher A. Moskalkovich, Henry F. Friesner, Jr., and Garret M. Hampton.

- 5979 Estrogen Receptor Status in Breast Cancer Is Associated with Remarkably Distinct Gene Expression Patterns.** Sofya Gruberger, Markus Ringnér, Yiqing Chen, Sujatha Panavally, Liao H. Sual, Åke Borg, Märten Fernö, Carsten Peterson, and Paul M. Meltzer.

- 5985 Phosphatidylinositol-3-OH Kinase (PI3K)/AKT2, Activated in Breast Cancer, Regulates ER Induced by Estrogen Receptor α (ER α) via Interaction between ER α and PI3K.** Mei Sun, June E. Paciga, Richard I. Feldman, Zeng-qiang Yuan, Domenico Coppola, You Yong Lu, Sue A. Shelley, Santo V. Nicotra, and Jin Q. Cheng.

- 5992 The EWS Protein Is Dispensable for Ewing Tumor Growth.** Heinrich Kovar, Gunhild Jug, Claudia Hattinger, Laura Spaeth, Diane N. T. Aryee, Peter A. Ambros, Andreas Zoubek, and Helmut Gadner.

- 5998 High Incidence of Somatic Mitochondrial DNA Mutations in Human Ovarian Carcinomas.** Vincent W. S. Liu, Hong Hui Shi, Annie N. Y. Cheung, Pui Man Chiu, Tsui Wah Leung, Phillip Nagley, Ling Chui Wong, and Hexian Y. S. Ngan.

- 6002 Cell Growth Inhibition by the Multifunctional Multivalent Zinc-Finger Factor CTCF.** John E.J. Rasko, Elena M. Klenova, Javier Leon, Galina N. Filippova, Dmitri I. Loukinov, Sergei Vatolin, Abigail R. Robinson, Ying Jia Hu, Jonathan Ulmer, Michael D. Ward, Elena M. Pugacheva, Paul E. Neiman, Herbert C. Morse, III, Steven J. Collins, and Victor V. Lobanenkov.

- 6008 The Transcriptional Repressor p16/INK4a, ID1, Is Up-Regulated in Early Melanomas.** David Polksy, Alison Zuying Young, Klaus J. Busam, and Rhoda M. Alani.

- 6012 A Conditional Replication-competent Adenoviral Vector, Ad-OC-E1a, to Cotarget Prostate Cancer and Bone Stromas in an Experimental Model of Androgen-independent Prostate Cancer: Bone Metastasis.** Shigeji Matsubara, Yoshitaka Wada, Thomas A. Gardner, Masayuki Egawa, Moon-Soo Park, Chia-Ling Hsieh, Hayeon E. Chung, Ching-Hao Kao, Sadao Kamidono, Jay Y. Gilliland, and Leland W. K. Chung.

- 6020 Hypoxia and Acidosis Independently Up-Regulate Vascular Endothelial Growth Factor Transcription in Brain Tumors *In Vivo*.** Dai Fukumura, Lei Xu, Yi Chen, Takeshi Gohongi, Brian Seed, and Rakesh K. Jain.

- 6025 Age-related Radical-induced DNA Damage Is Linked to Prostate Cancer.** Donald C. Malins, Paul M. Johnson, Thomas M. Wheeler, Edward A. Barker, Nayak L. Polissar, and Mark A. Vinson.

- 6029 Quantitation of Serum Prostate-specific Membrane Antigen by a Novel Protein Biochip Immunoassay Discriminates Benign from Malignant Prostate Disease.** Zhen Xiao, Bao-Ling Adam, Lisa H. Cazares, Mary Ann Clements, John W. Davis, Paul F. Schellhammer, Enrique A. Dalmasso, and George L. Wright, Jr.

- 5895 Genetic Analysis of Early- versus Late-Stage Ovarian Tumors.** Viji Shridhar, John Lee, Ajay Pandita, Steve Iturriz, Rajeswari Avula, Julie Staub, Mike Morrissey, Eric Calhoun, Ami Sen, Kimberly Kalli, Gary Keeney, Patrick Roche, William Cliby, Karen Lu, Rosemary Schmidt, Gordon B. Mills, Robert C. Bast, Jr., C. David James, Fergus J. Couch, Lynn C. Hartmann, Jim Little, and David L. Smith.

Tumor Biology

- 5905 Tumor Suppressor Genes in the 9p21 Gene Cluster Are Selective Targets of Inactivation in Neuroendocrine Gastroenteropancreatic Tumors.** Niklaus Lubomierski, Michael Kersting, Tillmann Bert, Karin Muench, Ulrich Wulbrand, Marcus Schuermann, Detlev Bartsch, and Babette Simon.

- 5911 Hepatocyte Growth Factor/Scatter Factor-induced Activation of MEK and PI3K Signal Pathways Contributes to Expression of Proangiogenic Cytokines Interleukin-8 and Vascular Endothelial Growth Factor in Head and Neck Squamous Cell Carcinoma.** Gang Dong, Zhong Chen, Zhu-Yu Li, Ning T. Yeh, Caren C. Bancroft, and Carter Van Waes.

- 5919 Abrogation of Transforming Growth Factor- α /Epidermal Growth Factor Receptor Autocrine Signaling by an RXR-selective Retinoid (LGD1060, Targretin) in Head and Neck Cancer Cell Lines.** John I. Song, Miriam N. Lango, James D. Hwang, Stephanie D. Drening, Qing Zeng, William W. Lampert, and Jennifer Rubin Grands.

- 5926 Ubiquitin26S Proteasome-mediated Degradation of Topoisomerase I As a Resistance Mechanism to Camptothecin in Tumor Cells.** Shymal D. Desai, Tsai-Kun Li, Alexandra Rodriguez-Bauman, Eric H. Rubin, and Leroy F. Liu.

- 5933 Signaling from Protease-activated Receptor-1 Inhibits Migration and Invasion of Breast Cancer Cells.** Lakshmi Kannath, Ahou Meydan, Francine Foss, and Athan Kilianopoulos.

Virology

- 5941 Efficient Replication of Adenovirus Despite the Overexpression of Active and Nondegrade p53.** Philipp Koch, Jennifer Gatfield, Christian Löber, Urs Hobom, Claudia Lenz-Stippeler, Judith Roth, and Matthias Döbbelstein.

August 15, Number 16

6034 A Novel 7-modified Camptothecin Analog Overcomes Breast Cancer Resistance Protein-associated Resistance in a Mitoxontrone-selected Colon Carcinoma Cell Line.

- Paola Pergola, Michelangelo De Cesare, Paola De Isabella, Nives Caremin, Gina Beggiolini, Gabriella Pezzoni, Manlio Palumbo, Renzo Tagliafici, Grazia Piatelli, Claudio Pisano, Paolo Carrinatti, George L. Schettino, and Franco Zantini.

- 6038 ELAC2/HPC2 Involvement in Hereditary and Sporadic Prostate Cancer.** Annika Röök, Tarja Ikonen, Nina Mononen, Ville Autio, Mikko P. Matikainen, Pasi A. Koivisto, Teuvo L. J. Tammiela, Olli-P. Kallioniemi, and Johanna Schleutker.

- 6042 CYCLIN D1 as a Genetic Modifier in Hereditary Nonpolyposis Colorectal Cancer.** Shashi Bala and Päivi Peltomäki.

- 6046 Instabilityotyping: Comprehensive Identification of Frame-shift Mutations Caused by Coding Region Microsatellite Instability.** Yuriko Mori, Jing Yin, Asma Rashid, Barbara A. Leggett, Joanne Young, Lisa Simans, Peter M. Kuehl, Patricia Langenberg, Stephen J. Meltzer, and O. Colin Stine.

- 6050 Regulation of Vascular Endothelial Growth Factor by the Wnt and K-ras Pathways in Colonic Neoplasia.** Xiaobin Zhang, John P. Gaspard, and Daniel C. Chung.

- 6055 The Expression of Inducible cAMP Early Repressor (ICER) Is Altered in Prostate Cancer Cells and Reverses the Transformed Phenotype of the LNCaP Prostate Tumor Cell Line.** Ghassan Yehia, Reza Razavi, Elisabeth Memm, Florence Schlötter, and Carlos A. Molina.

Regular Articles

Carcinogenesis

- 6060 Phosphorylation of Mitogen-activated Protein Kinase is Inhibited by Calcitonin in DU145 Prostate Cancer Cells.** Naoki Segawa, Misaki Nakamura, Yasushi Nakamura, Ichiro Mori, Yoji Katsuka, and Kenichi Kakudo.

- 6064 A Human Prostatic Epithelial Model of Hormonal Carcinogenesis.** Yuzhu Wang, Daniel Sudilovsky, Baoshu Zhang, Peter C. Haughey, Mark A. Rosen, David S. Wu, Tristan J. Cumha, Rajiv Dahiya, Gerald R. Cumha, and Simon W. Hayward.

- 6073 Targeted Anticancer Expression in the Skin of Transgenic Mice Reduces Tumor Promoter Induction of Ornithine Decarboxylase and Decreases Sensitivity to Chemical Carcinogenesis.** David J. Feith, Lisa M. Shantz, and Anthony E. Pegg.

- 6082 Overexpression of Manganese Superoxide Dismutase Suppresses Tumor Progression by Modulation of Activator Protein-1 Signaling in a Multistage Skin Carcinogenesis Model.** Yunfeng Zhao, Yixie Xu, Terry D. Oberley, Kelley K. Kiningham, She-Mei Lin, Hsiu-Chuan Yen, Hideyuki Majima, Judy Hines, and Daret St. Clair.

Endocrinology

- 6089 Estrogen Prevention of the Developing Prostate Gland Is Mediated through Stromal Estrogen Receptor α Studies with eER α and β ER α Mice.** Gail S. Prins, Lynn Birch, John F. Coene, Inho Choi, Bentia Katzenellenbogen, and Kenneth S. Korach.

- 6098 A Molecular Mimic of Phosphorylated Proelin Markedly Reduced Tumor Incidence and Size When DU145 Human Prostate Cancer Cells Were Grown in Nude Mice.** Xiaolei Xu, Eva Kreye, C. Benson Kuo, and Aneesh M. Walker.

- 6105 Overexpression and Overactivation of Akt in Thyroid Carcinoma.** Matthew D. Ringel, Nicole Hayre, Jun Saito, Bertrand Saunier, Frank Schuppert, Henry Burch, Victor Bernet, Kenneth D. Burman, Leonard D. Kahn, and Motoyoshi Saji.

Epidemiology and Prevention

- 6112 Chemoprevention of Esophageal Tumorigenesis by Dietary Administration of Lyophilized Black Raspberries.** Laura A. Kresty, Mark A. Morse, Charlotte Morgan, Peter S. Carlton, Jerry Lu, Ashok Gupta, Michelle Blackwood, and Gary D. Stoner.

Special Recognition

- 5954 V. Craig Jordan, Ph.D., D.Sc., Receives Bristol-Myers Squibb Award.**

5955 Announcements

- Future Annual Meetings of the American Association for Cancer Research
AACR Special Conferences in Cancer Research
Calendar of Events

5956 Corrections

- X. Huang *et al.*, Cancer Res., 61: 478–481, 2001.
S.-H. Song *et al.*, Cancer Res., 61: 4628–4635, 2001.

5957 Author Index

- 6120 Dietary Indoles and Isothiocyanates That Are Generated from Cruciferous Vegetables Can Both Stimulate Apoptosis and Confer Protection against DNA Damage in Human Colon Cell Lines.** Christine Bonnemais, Ian M. Eggleston, and John D. Hayes.

- 6131 Suppression of Intestinal Polyps in Msh2-deficient and Non-Msh2-deficient Multiple Intestinal Neoplasia Mice by a Specific Cyclooxygenase-2 Inhibitor and by a Dual Cyclooxygenase-1/2 Inhibitor.** Geeta Lal, Colleen Ash, Kary Hay, Mark Redston, Elizabeth Kwong, Bruno Hancock, Tak Mak, Stacia Kargman, Jilly F. Evans, and Steven Gallinger.

Experimental Therapeutics

- 6137 Resveratrol Exhibits Cytostatic and Antiestrogenic Properties with Human Endometrial Adenocarcinoma (Ishikawa) Cells.** Krishna P. L. Bhat and John M. Pezzuto.

- 6145 Nontoxic Doses of Suramin Enhance Activity of Paclitaxel against Lung Metastases.** Sachem Sung, M. Guillaume Wientjes, Colin Walsh, and Jessie L.S. Au.

- 6151 Growth-inhibitory Effect of a Streptococcal Antimurin Glycoprotein on Human Epidermoid Carcinoma A431 Cells: Involvement of Dephosphorylation of Epidermal Growth Factor Receptor.** Junko Yoshida, Takaharu Ishibashi, and Matome Nishio.

- 6158 Carcinoembryonic Antigen-specific Suicide Gene Therapy of Cytosine Deaminase-5-Fluorouracil Enhanced by the Cre/loxP System in the Orthotopic Gastric Carcinoma Model.** Kentaro Ueda, Makoto Iwashita, Mikihito Nakamura, Masaki Nakamura, Ichiro Matsura, Hiroki Yamane, and Hiroshi Tanimura.

- 6163 An Adenovirus Expressing Mutant p27 Showed More Potent Antitumor Effects Than Adenovirus-p27 Wild Type.** Kyung-Ho Park, Ja Young Seol, Tae-You Kim, Chang-Gyu Yoo, Young Whan Kim, Sung-Koo Han, Young-Soo Shim, and Choon-Taek Lee.

- 6170 A Novel cdk2-selective Inhibitor, SU9516, Induces Apoptosis in Colon Carcinoma Cells.** Maureen E. Lane, Bo Yu, Eddie Rice, Kenneth E. Lipson, Chris Liang, Lin Sun, Cho Tang, Gerald McMahon, Richard G. Pestell, and Scott Wadler.

- 6178 Targeted Interleukin 2 Therapy Enhances Protective Immunity Induced by an Autologous Oral DNA Vaccine against Murine Melanoma.** Andreas G. Niethammer, Rong Xiang, J. Michael Ruelmann, Holger N. Lode, Carrie S. Dolman, Stephen D. Gillies, and Ralph A. Reisfeld.

- 6185 Loss of p53 Function Confers High-Level Multidrug Resistance in Neuroblastoma Cell Lines.** Nitin Keshaviah, Juan J. Zuo, Ping Chen, Sitara N. Waidyanathan, Marian C. Luna, Charles J. Gomer, Timothy J. Triche, and C. Patrick Reynolds.

- 6194 Interleukin-13 Receptor-targeted Cancer Therapy in an Immunodeficient Animal Model of Human Head and Neck Cancer.** Koji Kawakami, Mariko Kawakami, Bharat H. Joshi, and Raj K. Puri.

- 6201 Eradicatin of Intraperitoneal and Distant Tumor by Adenovirus-mediated Interferon- α Gene Therapy Is Attributable to Induction of Systemic Immunity.** Makoto Okada, Daniel H. Sternman, Raina Wiersch, Yi Zhang, Michael Kieber, Kunjilata M. Amrin, Guan-Ping Gao, James M. Wilson, James Barsoum, Larry R. Kaiser, and Steven M. Albersdorff.

- 6213 Anticancer Effects of Thiazolidinediones Are Independent of Peroxisome Proliferator-activated Receptor γ and Mediated by Inhibition of Translation Initiation.** Sangheetha S. Palakurthi, Huseyin Aktas, Luciano M. Grubisic, Richard M. Mortensen, and José A. Halperin.

CONTENTS OF VOLUME 61

Immunology

- 6219** Epstein-Barr Virus-specific Cytotoxic T Lymphocyte Responses in the Blood and Tumor Site of Hodgkin's Disease Patients: Implications for a T-cell-based Therapy. Ann L. N. Chapman, Alan B. Rickinson, Wendy A. Thomas, Ruth F. Jarrett, John Crocker, and Steven P. Lea.

Molecular Biology and Genetics

- 6227** A Subclass of HER1 Ligands Is a Prognostic Marker for Survival in Bladder Cancer Patients. Vibech Bech Thøgersen, Boe Sandahl Sørensen, Steen Seier Poulsen, Torben Falck Otfeldt, Hans Wolf, and Ebba Nexo.
- 6234** Tumor Susceptibility of *p21Waf1/Cip1*-deficient Mice. Juan Martín Caballero, Juana Flores, Pilar García-Palencia, and Manuel Serrano.
- 6239** Reversion of Transcriptional Repression of *Spi* by 5 azA-2'-Deoxycytidine Restores TGF- β Type II Receptor Expression in the Pancreatic Cancer Cell Line Mia PaCa-2. Kolaparthi Venkatasubbu, Sudhakar Ammanamanchi, Michael G. Brattain, Damon Mirami, and James W. Freeman.

Tumor Biology

- 6248** Expression of Angiopoietin-2 in Human Glioma Cells and Its Role for Angiogenesis. Kazunari Koga, Tamaki Todaka, Motohiko Morikawa, Jun-ichiro Hamada, Yutaka Kai, Shigetoshi Yano, Akira Okamura, Nobuyuki Takakura, Toshio Suda, and Yukitaka Ushio.

Perspectives in Cancer Research

- 6307** Lipoygenase Modulation to Reverse Carcinogenesis. Imad Shureiqi and Scott M. Lippman.

Review

- 6313** Adeno-associated Virus for Cancer Gene Therapy. Selvarangan Ponnathagan, David T. Curie, Denise R. Shaw, Ronald D. Alvarez, and Gene P. Siegal.

Advances in Brief

- 6322** Cooperative Interactions of Laminin 5 $\gamma 2$ Chain, Matrix Metalloproteinase-2, and Membrane Type-1-Matrix/Metalloproteinase Axis Required for Mimicry of Embryonic Vasculogenesis by Aggressive Melanoma. Richard E. B. Setzer, Elizabeth A. Sefer, Naohiko Koshikawa, Paul S. Meltzer, Lynn M. G. Gardner, Martin Bilezikian, William G. Stettler-Stevenson, Vito Quaranta, and Mary J. C. Hendrix.

- 6328** Enhanced Adenovirus Transgene Expression in Malignant Cells Treated with the Histone Deacetylase Inhibitor FR90128. Masaki Kitazono, Merrill E. Goldsmith, Takashi Aikou, Susan Bates, and Tito Fujio.

- 6331** Loss of Annexin II Heavy and Light Chain in Prostate Cancer and Its Precursors. Albert Cheticut, Sienna H. Margan, Peter Russell, Stephen Mann, Douglas S. Miller, Susan J. Clark, John Rogers, David J. Handelman, and Qihang Dong.

- 6335** Frequent Alterations of the *p11ARF* and *p14INK4a* Genes in Primary Central Nervous System Lymphomas. Mitsuhashi Nakamura, Toshiyuki Sakai, Hiroyuki Hashimoto, Hiroyuki Nakase, Eiwa Ishida, Keiji Shimada, and Noboru Konishi.

- 6340** TSU-Pr1 and JCA-1 Cells Are Derivatives of T24 Bladder Carcinoma Cells and Are Not of Prostatic Origin. Adrián van Bakoven, Marielisa Varela-García, Christopher Korch, and Gary J. Miller.

- 6345** Identification of *AF17* As a Downstream Gene of the β -catenin/Tcf Factor Pathway and Its Involvement in Colorectal Carcinogenesis. Yu-Min Lin, Kenji Ono, Seiji Satoh, Hideyuki Ishiguro, Manabu Fujita, Nobumoto Miwa, Toshihiro Tanaka, Tatsuhiko Tsunoda, Kou-Ching Yang, Yusuke Nakamura, and Yoichi Furukawa.

- 6350** Mutability of p53 Hotspot Codons to Benz(a)pyrene Diel Epoxide (BPDE) and the Frequency of p53 Mutations in Nonmucinous Human Lung. S. Pervez Hussain, Paul Aminstagh, Kamran Raji, Mark Sawyer, Lorrie Hofseth, Peter G. Shields, Alan Hewer, David H. Phillips, David Ryberg, Anne Haugen, and Curtis C. Harris.

- 6354** *Helicobacter pylori* Membrane Protein I: A New Carcinogenic Factor of *Helicobacter pylori*. Masami Suganuma, Miki Kurusu, Sachiko Okabe, Naoko Sueoka, Masaru Yoshida, Yoshio Wakatsuki, and Hiroto Fujiki.

- 6360** Estrogens Do Not Modify MAP Kinase-dependent Nuclear Signaling during Stimulation of Early G1 Progression in Human Breast Cancer Cells. Silvana Caristi, Juan Leyva Galera, Filomena Matarse, Manami Imai, Simona Caporali, Massimo Cancemi, Lucia Alinacci, Luigi Cicatiello, Diana Teti, Francesco Bresciani, and Alessandro Weisz.

- 6367** Smoking Increases Carcinogenic Polycyclic Aromatic Hydrocarbons in Human Lung Tissue. Radostar Goldman, Lindsey Enweloh, Edw Pellegrini, James B. Beach, Elise D. Bowman, Shiva S. Krishnan, and Peter G. Shields.

- 6372** Therapeutic Implications of Enhanced GpG/GC Checkpoint Control Induced by Coulture of Prostate Cancer Cells with Osteoblasts. Jacek Pinski, Asit Parikh, G. Steven Bova, and John T. Isaacs.

- 6377** Targeting Oncolytic Adenoviral Agents to the Epidermal Growth Factor Pathway with a Secretory Fusion Molecule. Akseli Hemminki, Igor Dmitriev, Biia Liu, Renée A. Desmond, Ramon Alemany, and David T. Curie.

- 6382** *scid* Thymocytes with TCRB Gene Rearrangements Are Targets for the Oncogenic Effect of *SCL* and *LMO1* Transgenes. David S. Chervinsky, Du H. Lam, Michael P. Melman, Kenneth W. Gross, and Peter D. Aplan.

Regular Articles

Carcinogenesis

- 6388** Human Ogg1, a Protein Involved in the Repair of 8-Oxoguanine, Is Inhibited by Nitric Oxide. Meeta Jaiswal, Nicholas F. LaRusso, Nenich Nishioka, Yusaku Nakabeppe, and Gregory J. Gores.

CONTENTS OF VOLUME 61

</div

CONTENTS OF VOLUME 61

September 15, Number 18

Advances in Brief

- 6619 Molecular Classification of Estrogens.** V. Craig Jordan, Jennifer MacGregor Schafer, Anais S. Levenson, Hong Liu, Katherine M. Pease, Laura A. Simons, and James W. Zapf.
- 6624 Inhibition of Glioma Angiogenesis and Growth *In Vivo* by Systemic Treatment with a Monoclonal Antibody against Vascular Endothelial Growth Factor Receptor-2.** Philip Kunkel, Ulrike Ulbricht, Peter Böhlen, Marc A. Brockmann, Regina Filibrandi, Dimitrios Stavrou, Manfred Westphal, and Kathrin Lamszus.
- 6629 Identification of *cJAP1* As a Candidate Target Gene within an Amplicon at 11q22 in Esophageal Squamous Cell Carcinomas.** Issei Imoto, Zeng-Qian Yang, Atsushi Pimokhwan, Hitoshi Tsuda, Yutaka Shimada, Masayuki Iimura, Misao Oki, and Johji Iizuka.
- 6635 Acquired Mutations in the *MXR/BCRP/ABCP* Gene Alter Substrate Specificity in *MXR/BCRP/ABCP*-overexpressing Cells.** Yassamaa Honjo, Christine A. Hrycyna, Qing-Wu Yan, Wilma Y. Medina-Pérez, Robert W. Robey, Anne van de Laar, Thomas Litman, Michael Chen, and Susan E. Bates.
- 6640 Characterization of the *Dgq14* Tumor Suppressor Locus in CLL: Identification of a T14I, an Alternative Splice Variant of the *LEU2* Gene.** Florencia Baffitch, Hisenori Fujii, George Cain, Hideki Mabuchi, Masumi Negrini, Yuri Pekarsky, Laura Rascenti, Hansjörg Alder, John C. Reed, Michael J. Keating, Thomas J. Kipps, and Carlo M. Croce.
- 6649 Cell Surface Tumor Endothelial Markers Are Conserved in Mice and Humans.** Eleanor B. Carson-Walter, D. Neil Watkins, Akash Nanda, Bert Vogelstein, Kenneth W. Kinzler, and Brad S. Crook.
- 6656 Accumulation of β -Catenin Protein and Mutations in Exon 3 of β -Catenin Gene in Gastrintestinal Carcinid Tumor.** Masahiko Fujimori, Satoshi Ikeda, Yousuke Shimizu, Masazumi Okajima, and Toshimasa Asahara.
- 6660 *APAF-1* Is a Transcriptional Target of *p53* in DNA Damage-induced Apoptosis.** Ana I. Robles, Nicole A. Bemmelts, Amy B. Forker, and Curtis C. Harris.
- 6665 Heterozygous Mice for the Transforming Growth Factor- β Type II Receptor Gene Have Increased Susceptibility to Hepatocellular Carcinogenesis.** Young-Hyuck Im, Heung Tae Kim, Isaac Yi Kim, Valentina M. Peter, Ki-Baik Nahm, Mario Anzano, Ja-June Jang, Kathleen Flanders, Diana C. Haines, Soon-S. Thorgerisson, Andrew Sizeland, and Seong-Jin Kim.
- 6669 HIF-1-dependent Regulation of Hypoxic Induction of the Cell Death Factors *BNIP3* and *NIX* in Human Tumors.** Heidi M. Sowter, Peter J. Ratcliffe, Peter Watson, Arnold H. Greenberg, and Adrian L. Harris.
- 6674 Akt Pathway Activation Converts Anaplastic Astrocytoma to Glioblastoma Multiforme in a Human Astrocyte Model of Glioma.** Yukihiko Sonoda, Tomoko Ozawa, Ken D. Aldape, Dennis F. Deen, Mitchel S. Berger, and Russell O. Pieper.
- 6679 Lung Tumor *KRAS* and *TP53* Mutations in Nonsmokers Reflect Exposure to Particulate Combustion Emissions.** David M. DeMarni, Stefano Landi, Delio Tosini, Naso M. Hanley, Xueling Li, Fuding Hu, Barbara C. Roop, Marc J. Mass, Phanfone Chekavong, Weimin Gao, Magali Olivier, Pierre Hainaut, and Judy L. Mumford.
- 6682 *MAGE-A* Gene Expression Pattern in Primary Breast Cancer.** Marcus Ott, Menelios Zafarakas, Lutz Riedholt, Uwe Pichlmeier, Thomas Löning, Fränzi Junke, and Klaus Pantel.
- 6688 Frequent Epigenetic Inactivation of *RASSF1A* in Human Bladder Carcinoma.** Min-Goo Lee, Hee-Yul Kim, Do-Sun Byeon, Sun-Ju Lee, Choong-Hyun Lee, Jin Il Kim, Sung-Choo Chang, and Sung-Gil Choi.
- 6693 Transfer of *E2F-1* to Human Glioma Cells Results in Transcriptional Up-regulation of *Bcl-2*.** Candelaria Gomez-Morano, Paraskovi Miliangi, Juan Fueyo, Ho-Yung Lee, Min Hu, Kevin B. Spurgers, Tricia L. Glass, Dimpay Koul, Ta-ien Liu, Timothy J. McDonnell, and W. K. Alfred Yung.
- 6698 Evidence Supporting a Role for Mitochondrial Respiration in Apoptosis Induction by the Synthetic Retinoid CD437.** Numseye Hall, JR, Emilie M. Youssef, and Reuben Lotan.
- 6703 Subcellular Distribution of *p53* and *p73* Are Differentially Regulated by *MDM2*.** Jijie Gu, Linghu Nie, Hidehiko Kawai, and Zhi-Min Yuan.
- 6708 Association between Carcinogen-DNA Adducts in White Blood Cells and Lung Cancer Risk in the Physicians Health Study.** Deliang Tang, David H. Phillips, Meir Stampfer, LaVerne A. Mooney, Yanzhai Hsu, Stan Cho, Wei-Yan Tsai, Jing Ma, Kathleen J. Cole, Meadhan Ni She, and Frederica P. Perera.
- 6713 Tumor Location and Growth Pattern Correlate with Genetic Signature in Oligodendroglial Neoplasms.** Magdalena C. Zlatescu, AliReza TehraniYazdi, Hikaru Sasaki, Joseph F. Megyesi, Rebecca A. Betensky, David N. Louis, and Jeffrey G Cairncross.
- Regular Articles**
- Biochemistry and Biophysics**
- 6716 Catechol-O-Methyltransferase (COMT)-mediated Metabolism of Catechol Estrogens: Comparison of Wild-Type and Variant COMT Isoforms.** Sheila Dowling, Nady Rissdi, Raymond L. Mernaugh, Xiaohong Wang, and Fritz P. Puri.
- 6723 Modulation of Intracellular β -Catenin Localization and Intestinal Tumorigenesis *In Vivo* by Springpliptides.** Eva M. Schmelz, Paul C. Roberts, Elizabeth M. Kustin, Lori A. Lemonier, M. Cameron Sullards, Drick L. Dillehay, and Alfred H. Merrill, Jr.
- 6730 Epstein-Barr Virus Encoded Latent Membrane Protein-1 Induces Epithelial Cell Proliferation and Senesces Transgenic Mice to Chemical Carcinogenesis.** John A. Curran, Fiona S. Laverty, Donald Campbell, Jennifer Macdiarmid, and Joanna B. Wilson.
- Clinical Investigations**
- 6739 Comparison of the Short-Term Biological Effects of 7α-(9,4,5,5,5-pentaurotoxyisopropyl)-nonylestra-1,3,5-(10)-triene-3,17 β -diol (Faslodex) versus Tamoxifen in Postmenopausal Women with Primary Breast Cancer.** John F. Robertson, Robert I. Nicholson, Nigel J. Bundrell, Elizabeth Bennett, Zeman Raynor, Mitchell Dowsett, John N. Fox, Julia M. W. Gee, Alan Webster, Alan E. Waking, Charles Morris, and Michael Dixon.
- Endocrinology**
- 6747 Differential Insulin-like Growth Factor 1 Receptor Signaling and Function in Estrogen Receptor ER-positive MCF-7 and ER-negative MDA-MB-231 Breast Cancer Cells.** Monica Bartucci, Catia Morelli, Lorendana Mauro, Sebastiano Andrioli, and Eva Surmacz.
- 6755 Transcriptional Regulation of the Estrogen-inducible *pS2* Breast Cancer Marker Gene by the ERR Family of Orphan Nuclear Receptors.** Desheng Lu, Yoshimitsu Kiriyama, John Y. Lee, and Vincent Giguere.
- 6762 Molecular Markers and Long-Term Recurrence in a Large Cohort of Patients with Sporadic Adrenocortical Tumors.** Christine Giacquel, Xavier Berthagna, Véronique Gaston, Joël Coste, Albert Louvel, Eric Baudin, Jérôme Berthet, Yves Chauvin, Jean-Marie Duclaux, Marin Schlumberger, Pierre-François Ploquin, Jean-Pierre Luton, and Yves Le Moal.
- 6768 Expression of Gonadotropin Receptor and Growth Responses to Key Reproductive Hormones in Normal and Malignant Human Ovarian Surface Epithelial Cells.** Viquar Syed, Gregory Ulinski, Samuel C. Mok, Gary K. Yiu, and Shak-Mei Ho.
- Epidemiology and Prevention**
- 6777 Genistein in the Diet Reduces the Incidence of Poorly Differentiated Prostatic Adenocarcinoma in Transgenic Mice (TRAMP).** Roycelyn Mentor-Marcel, Coral A. Lamartiniere, Isam-Eldin Eltom, Norman M. Greenberg, and Ada Elavaghi.
- Experimental Therapeutics**
- 6783 *In Vitro* Targeted Killing of Prostate Tumor Cells by a Synthetic Amido-pore Helix 3 Peptide Modified with Two γ -linked Glutamate Residues at the COOH Terminus.** Patrick Warren, Laiji Li, Wendy Song, Eric Hollie, Yangzhang Wei, Thomas Wagner, and Xianzhong Yu.
- 6788 Inhibition of Tumor Cell Invasion and Angiogenesis by Motuporanimine.** Calvin D. Roskelley, David E. Williams, Liane M. McHardy, Kevin G. Leong, Arlemelle Trousdale, Aly Karan, Raymond J. Andersen, Shoukat Deshpande, and Michel Robere.
- 6792 Adenovirus-mediated Tissue-targeted Expression of a Caspase-9-based Artificial Death Switch for the Treatment of Prostate Cancer.** Xiongjie Xie, Xiuqian Zhao, Yuanfang Liu, Jueting Zhang, Robert J. Mauiski, Kevin M. Slawin, and David M. Spencer.
- 6805 Methionine Cancer Gene Therapy with Selenomethionine as Suicide Prodrug Substrate.** Kenji Mikita, Mingxu Yu, Anshu Gupta, Yi Bai, Yuying Tan, Waddad Al-Refai, Michael Bouvet, Masatoshi Makuschki, A. R. Moosa, and Robert M. Hoffman.
- 6811 The Susceptibility of Tumors to the Antivascular Drug Comberstatin A4 Phosphate Correlates with Vascular Permeability.** Daniel A. Beauregard, Sally A. Hill, Dan J. Chaplin, and Kevin M. Brindle.
- 6816 Taurouridine: Cytotoxic and Mechanistic Evaluation of a Novel Antineoplastic Agent.** Paul Calabresi, Frederick A. Goulet, and James W. Danowski.
- 6822 α 2 δ -Subunit of Cell-Surface N-Glycans Inhibits Glioma Formation *In Vivo*.** Hirotsugu Yamamoto, Angelica Oviedo, Charla Sweeney, Tasuku Saito, and Joseph R. Moskala.
- 6830 Intravital Microscopy Reveals Novel Antivascular and Antitumor Effects of Endostatin Delivered Locally by Aligate-encapsulated Cells.** Tracy-Ann Reid, Mohammed Farhadi, Rolf Björkig, Björn Reino Olsen, Anne Mari Rokstad, Peter C. Husrthy, and Peter Vajkoczy.
- 6838 Tumor-specific Up-regulation of the Nonclassical Class I HLA-G Antigen Expression in Renal Carcinoma.** El Chérif Ibrahim, Nadia Guerra, Maríe José Terrier Lacombe, Eric Angevin, Salem Chouib, Edgardo D. Carosella, Anne Caignard, and Pascale Paul.
- 6846 The Epithelial Tumor Antigen MUC1 Is Expressed in Hematological Malignancies and Is Recognized by MUC1-specific Cytotoxic T-Lymphocytes.** Peter Brossig, Amy Schneider, Patricia Dill, Theodore Schamberg, Frank Grünbach, Stefan Wirths, Lothar Kanz, Hans-Jörg Bühring, and Wolfram Brügger.
- October 1, Number 19**
- 6902 SKY1 Is Involved in Cisplatin-induced Cell Kill in *Saccharomyces cerevisiae*, and Inactivation of Its Human Homologue, *SRPK1*, Induces Cisplatin Resistance in a Human Ovarian Carcinoma Cell Line.** Paul W. Schenk, Antonius W. M. Boersma, Jourica A. Brandoma, Hans den Dulk, Herman Burger, Gerrit Stoter, Jaap Brouwer, and Kees Nooteer.
- 6907 Plasmids with a Mammalian Replication Origin and a Matrix Attachment Region Initiate the Event Similar to Gene Amplification.** Noriaki Shimizu, Yui Miura, Yu Sakamoto, and Ken Tsutsui.
- 6911 Age-related Hypermethylation of the 5' Region of *MLH1* in Normal Colonic Mucosa Is Associated with Microsatellite-unstable Colorectal Cancer Development.** Hiroyuki Nakagawa, Gerard J. Nuovo, Emmanuel E. Zervos, Edward W. Martin, Jr., Reijo Salovaara, Lauri A. Autioinen, and Albert de la Chapelle.
- 6916 Secreted and Cell Surface Genes Expressed in Benign and Malignant Colorectal Tumors.** Philip Buckhaults, Carlo Rago, Brad St. Croix, Katherine E. Romans, Saurabh Saha, Lin Zhang, Bert Vogelstein, and Kenneth W. Kinzler.

Letter to the Editor

- 6964 Correspondence re: W. Paille's Letter to the Editor.** *Cancer Res.*, 60: 1146, 2000. Alina Romanenko, Alexander Voizanov, Keiichiro Morimura, Shoji Fukushima.

6966 Announcements

- Fifth Annual Meeting of the American Association for Cancer Research
AACR Special Conferences in Cancer Research
Calendar of Events

6968 Author Index

CONTENTS OF VOLUME 61

- 7002 Complete Inhibition of Vascular Endothelial Growth Factor (VEGF) Activities with a Bifunctional Diabody Directed against Both VEGF Kinase Receptors, *fms*-like Tyrosine Kinase Receptor and Kinase Insert Domain-containing Receptor.**
- 7009 Adenovirus-mediated Transfection of Caspase-8 Augments Anoikis and Inhibits Peritoneal Dissemination of Human Gastric Carcinoma Cells.** Susumu Nishimura, Masaki Adachi, Tadao Iihida, Takahiro Matsunaga, Hiroaki Uchida, Hiromi Hamada, and Koichiro Imai.
- 7015 Identification of a Mononucleotide Repeat as a Major Target for Mitochondrial DNA Alterations in Human Tumors.** Montserrat Sanchez-Cespedes, Paola Parrella, Shuji Nomoto, Daniel Cohen, Yair Xian, Manel Esteller, Carmen Jerezmo, Richard C. K. Jordan, Theresa Nicol, Wayne M. Koch, Mark Schoenberg, Paola Mazzarelli, Vito M. Fazio, and David Sidransky.
- 7020 A Nonsense Mutation in *MHL1* Causes Exon Skipping in Three Unrelated HNPCC Families.** Alessandro Stella, Anja Wagner, Kazuhisa Shinohara, Steven M. Lippkin, Patricia Watson, Ginevra Guanti, Henry T. Lynch, Riccardo Fodde, and Bo Liu.
- 7025 Synergistic Activation of Functional Estrogen Receptor (ER)- α by DNA Methyltransferase and Histone Deacetylase Inhibitors in Human ER- α -negative Breast Cancer Cells.** Xuewei Yang, Dawn L. Phillips, Anne T. Ferguson, William G. Nelson, James G. Herman, and Nancy E. Davidson.
- 7030 Substitutions That Compromise the Ionizing Radiation-induced Association of p53 with 14-3-3 Proteins Also Compromise the Ability of p53 to Induce Cell Cycle Arrest.** Elena S. Stavridi, Nabil H. Chehade, Asra Malikzay, and Thanos D. Halazonetis.
- 7034 Frequent Epigenetic Inactivation of *RASSF1A* by Aberrant Promoter Hypermethylation in Human Gastric Adenocarcinoma.** Do-Sun Byun, Min-Goo Lee, Kwon-Chul Choi, Hyung-Gyu Ryu, and Sung-Gil Choi.
- 7039 Deletions of *AXIN1*, a Component of the WNT/β-Catenin Pathway, in Sporadic Medulloblastomas.** R. P. Dahmen, A. Koch, D. Denkhaus, J. C. Tonn, N. Sørensen, F. Berthold, J. Behrens, W. Birchmeier, O. D. Wiestler, and T. Pietsch.
- 7044 High Expression of S-Phase Kinase-interacting Protein 2, Human F-box Protein Correlates with Poor Prognosis in Oral Squamous Cell Carcinomas.** Yasushi Kudo, Shojiro Kitajima, Sanao Satoh, Matsuomi Miyazaki, Ikuo Ogawa, and Takashi Takaishi.
- 7048 *In Vitro* Intracellular Signaling as a Marker of Antiangiogenic Activity.** Carmen C. Solano, Young J. Jung, Corazon D. Bucana, David J. McConkey, Gary E. Gallick, Gerald McMahon, and Lee M. Ellis.
- 7052 Therapeutic Efficacy of E2F1 in Pancreatic Cancer Correlates with *TP73* Induction.** Florian Rödiger, Thorsteinn Steine, Sonja Zimmernmann, and Brigitte M. Putzer.
- 7056 Brain Enriched Hyaluronan Binding (BEHAB)/Breviscan Increases Aggressiveness of CNS-1 Gliomas in Lewis Rats.** Catherine L. Nutt, Cynthia A. Zerillo, Gail M. Kelly, and Susan Hoeckfield.
- 7060 Suppression of Intestinal and Mammary Neoplasia by Lifetime Administration of Aspirin in *Ap-* Min^+ and *Ap-* Min^+ , *Msh2* $^{+/+}$ Mice.** Owen J. Sansom, Lesley A. Stark, Malcolm G. Dunlop, and Alan R. Clarke.
- Regular Articles**
- Biochemistry and Biophysics**
- 7065 Retinoic Acid Biosynthesis by Normal Human Breast Epithelium Is via Aldehyde Dehydrogenase 6, Absent in MCF-7 Cells.** Brent N. Reuter, Wen Li Zheng, and David E. Ong.
- 7071 Redox-mediated Effects of Selenium on Apoptosis and Cell Cycle in the LNCaP Human Prostate Cancer Cell Line.** Weixiong Zhong and Terry D. Oberley.
- 7079 Inhibition of Focal Adhesion Kinase Expression or Activity Disrupts Epidermal Growth Factor-stimulated Signaling, Promotes the Migration of Invasive Human Carcinoma Cells.** Christian R. Hauck, David J. Sieg, Daisun A. Hua, Joseph C. Loftus, William A. Guadie, Brett P. Monia, and David D. Schlaepfer.
- Carcinogenesis**
- 7091 Collagenase-3 Expression in Breast Myofibroblasts as a Molecular Marker of Transition of Ductal Carcinoma *In Situ* Lesions to Invasive Ductal Carcinomas.** Boye Schnack Nielsen, Frits Rank, José Manuel López, Milagros Balbín, Francisco Vizoso, Leif Rege Lund, Keld Dane, and Carlos López-Otin.
- 7101 Alterations of β - and γ -Catenin in N-Butyl-N-(4-hydroxybutyl)nitrosamine-induced Murine Bladder Cancer.** Hiroaki Shima, Mikio Igawa, Shinji Urakami, Kanishi Shigeno, Tatsuki Yoneda, Masaharu Terashima, Masao Deguchi, Leopoldo Ribeiro-Filho, and Rajivir Dahiya.
- 7110 Methylated CpG Dinucleotides Are the Preferential Targets for G-to-T Transversion Mutations Induced by Benzo(a)pyrene-Diol Epoxide in Mammalian Cells: Similarities with the p53 Mutation Spectrum in Smoking-associated Lung Cancers.** Jung-Hoon Yoon, Leslie E. Smith, Zhaojun Feng, Moon-shong Tang, Chong-Soo Lee, and Gerd Pfeifer.
- 7118 Evidence for a Putative Senescence Gene Locus Within the Chromosomal Region 10p14- $\text{p}15$.** Manuela Poignée, Claudia Backx, Karin Beer, Lars Janzen, Nikolai Wagenblast, Eric J. Stanbridge, Richard Kirchmayr, Achim Schneider, and Matthias Dürst.
- Review**
- 7369 The Selection for Mismatch Repair Defects in Hereditary Nonpolyposis Colorectal Cancer: Revising the Mutator Hypothesis.** Richard Fishel.
- Advances in Brief**
- 7375 A Polymorphism in Endostatin, an Angiogenesis Inhibitor, Predisposes for the Development of Prostatic Adenocarcinoma.** Paula Inglett, Oscar Suzuki, Paulo H. C. Godoi, Venâncio Avancini Ferreira Alves, Andreia L. Serté, Todd Zorick, Fernando Soares, Anamaría Camargo, Eloisa S. Moreira, Celso de Loreto, Carlos Alberto Moreira-Filho, Andrew Simpson, Gláucia Oliva, and Maria Rita Passos-Bueno.
- Endocrinology**
- 7122 Growth Inhibitory Effects of 1 α ,25-Dihydroxyvitamin D₃ Are Mediated by Increased Levels of p21 in the Prostatic Carcinoma Cell Line ALVA-31.** Kirsten A. Moffatt, Widya U. Johannes, Tammy E. Heldlund, and Gary J. Miller.
- Epidemiology and Prevention**
- 7130 Polymorphisms in Glutathione S-Transferase (*GSTM1* and *GSTT1*) and Survival after Treatment for Breast Cancer.** Christine B. Ambrose, Carol Sweeney, Brian F. Cole, Patricia A. Thompson, Gail Y. McClure, Sobella Korourian, Manal Y. Fares, Angie Stone, Fred J. Kadlubar, and Laura F. Hutchins.
- 7136 Dietary Folate Intake and Breast Cancer Risk: Results from the Shanghai Breast Cancer Study.** Martha J. Shu, Fan Jin, Qi Dai, Xiao-Ou Shu, John D. Potter, James R. Hebert, Yu-Tang Gao, and Wei Zheng.
- Experimental Therapeutics**
- 7142 p202, an Interferon-inducible Protein, Mediates Multiple Antitumor Activities in Human Pancreatic Cancer Xenograft Models.** Wong Yen, Daewha Yoo, Bawang Wang, Bill Spohn, Yi Ding, Ruping Shao, Yiyu Zou, Keping Xie, and Mien-Chie Hung.
- 7148 Induction of Apoptosis in 9-Nitrocamptothecin-treated DU145 Human Prostate Carcinoma Cells Correlates with *dnm2* Expression of CD95 and CD95 Ligand and Down-regulation of c-FILIPinolactone-Destabilizes Parthenocystis.** Ingo Schmitz, Andreas Krueger, Kam Yamag, Sabina Kirchhoff, Peter H. Kramer, Marcus E. Peter, James H. Wyche, and Panayiotis Pantazis.
- 7155 Pegylation of a Cholera Polymer Conjugate Increases Tumor Targeting of Photosensitizers.** Michael R. Hamblett, Jamie L. Miller, Imra Rizvi, Bernhard Ortell, Edward V. Mayin, and Tayyaba Hasan.
- 7163 Enhanced Uptake of a Thermally Responsive Polypeptide by Tumor Cells in Response to Its Hyperthermia-mediated Phase Transition.** Dietrich Raucher and Ashutosh Chilkoti.
- 7171 Antimitotic and Proapoptotic Activities of Methylseleninic Acid in Various Endothelial Cells and Associated Effects on PI3K-AKT, ERK, JNK and p38 MAPK Signaling.** Zaisen Wang, Cheng Jiang, Howard Ganther, and Junxian Lu.
- 7179 Differential Expression of Members of the Tumor Necrosis Factor α -related Apoptosis-inducing Ligand Pathway in Prostate Cancer Cells.** Supriya Srivastava, Afshan A. Ali, Yanan Liang, M. Fahy El Etreby, Ronald W. Lewis, and M. Vijay Kumar.
- 7184 The Tyrosine Kinase Inhibitor ZD1839 ("Iressa") Inhibits HER2-driven Signaling and Suppresses the Growth of HER2-overexpressing Tumor Cells.** Mark M. Moasser, Andrea Bassi, Steven D. Averbuch, and Neal Rosen.
- 7189 Potent Antitumor Activity and Improved Pharmacological Profile of ST1481, a New 7-Substituted Camptothecin.** Michalendras De Cesare, Grazia Pratesi, Paola Perigo, Nives Caremi, Silvia Tinelli, Lucio Merlini, Sergio Penco, Claudio Pisano, Federica Bucci, Loredana Vesci, Silvia Pace, Francesca Capocasa, Paolo Caminati, and Franco Zimino.
- 7196 The Characterization of Novel Dual Erbb-2/GrfR, Tyrosine Kinase Inhibitors.** Michael J. Silliman, James W. Winkler, and Michael J. Silliman, Stuart G. Cockrell, Colin Sulterfield, Robert H. Martin, Martin Page, Kathryn J. Smith, Stephen B. Gunter, Malcolm J. Carter, Robert J. Shaw, Amanda Jowett, Jennifer Stables, Peter Topley, Edgar R. Wood, Perry S. Brignola, Sue H. Kadwell, Bryan R. Reep, Robert J. Mullin, Kristy J. Allgood, Barry R. Keith, Renae M. Crosby, Dots M. Murray, W. Blaine Knight, Tona M. Gilmer, and Karen Lackey.
- 7204 Expression of CD26 and Its Associated Dipeptidyl Peptidase IV Enzyme Activity Enables Sensitivity to Doxorubicin-induced Cell Cycle Arrest at the G₂/M Checkpoint.** Ugur Aydin, Françoise Xavier Clare, Linus Ho, Kenzawa Sato, Koi Ohshima, Gordon B. Mills, Fernanda Cabunias, Chikao Morimoto, and Nam H. Dang.
- 7211 Involvement of Cdc25a Phosphatase in Hep3B Hepatoma Cell Growth Inhibition Induced by Novel K Vitamin Analogs.** Ziqiu Wang, Eileen C. Southwick, Merle Wang, Siddhartha Kar, Kathryn S. Rossi, Craig S. Wilcock, John S. Lazo, and Brian J. Carr.
- 7217 Mechanisms of Uptake and Resistance to Traxicetinib, a Novel Deoxy-cytidine Nucleoside Analogue, in Human Leukemic and Solid Tumor Cell Lines.** Henriette Gourdeau, Marilyn L. Clarke, France Oueller, Delores Mowles, Milada Selner, Annie Richard, Nola Lee, John R. Mackay, James D. Young, Jacques Jolivet, Ronald G. Lafrenière, and Carol E. Cass.
- 7225 Transport of Methotrexate (MTX) and Folate by Multidrug Resistance Protein (MDR-3 and MRP1): Effect of Polyglutamylation on MTX Transport.** Hao Zeng, Zhe-Sheng Chen, Martin G. Belinsky, Philip A. Rea, and Gary D. Kroth.
- Immunology**
- 7233 Absence of the Wild-type Allele Predicts Poor Prognosis in Adult *In Vivo* Acute Myeloid Leukemia with Normal Cytogenetics and the Internal tandem Duplication of *FLT3*: A Cancer and Leukemia Group B Study.** Susan P. Whisman, Kellee J. Archer, Lan Feng, Claudia Baldus, Brian Becknell, Brian D. Carlson, Andrew J. Carroll, Kirzoltz Mörökz, James W. Vardiman, Stephen L. George, Jonathan E. Koltz, Richard A. Larson, Clara D. Bloomfield, and Michael A. Califano.
- 7240 Macrophagesorchestrate the Immune Response to Tumor Cell Death.** Michael J. Gough, Alan A. Melcher, Atta Ahmed, Marka R. Crittenden, David S. Riddle, Emmanouela Linardakis, Anja N. Ruchatz, Lisa M. Emilusser, and Matthias Dürst.
- Molecular Biology and Genetics**
- 7246 Second Primary or Recurrence? Comparative Patterns of p53 and KR- ras Mutations Suggest that Serous Borderline Ovarian Tumors and Subsequent Serous Carcinomas Are Unrelated Tumors.** B. Hannah Ortiz, Monica Alilawadi, Cristiano Colitti, Michael G. Muto, Michael Deavers, Elvio G. Silva, Ross S. Berkowitz, Samuel C. Mok, and David M. Gershenson.
- 7252 Par-4 Drives Trafficking and Activation of Fas and FasL to Induce Prostate Cancer Cell Apoptosis and Tumor Regression.** Mala Chakrabarty, Shirley Guofang Qiu, Krishna Murthy Vasudevan, and Vivek M. Ranjekar.
- 7258 Multipoint Imprinting Analysis Indicates a Common Precursor Cell for Gonadal and Nongonadal Pediatric Germ Cell Tumors.** Dominik T. Schneider, Amy E. Schuster, Michael K. Fritsch, Jie Hu, Thomas Olson, Stephen Laufer, Ulrich Göbel, Elizabeth J. Perlman, the Pediatric Oncology Group, and German Pediatric Germ Cell Tumor Study Group.
- 7277 Epigenetic Inactivation of the *RASSF1A* 3p21.3 Tumor Suppressor Gene in Bone Clear Cell and Papillary Renal Cell Carcinoma.** Catherine Morrissey, Alonso Martínez, Małgorzata Zalińska, Angelo Agathangelou, Sofia Honorio, Désiré Attust, Neil V. Morgan, Hoger Mach, Francis M. Richards, Takeshi Kishida, Masahiro Yao, Peter Schraml, Fonda Lauf, and Eamonn R. Maher.
- Tumor Biology**
- 7282 Modulation of Angiogenesis and Tumorigenicity of Human Melanocyte Cells by Vascular Endothelial Growth Factor and Basic Fibroblast Growth Factor.** Ullrich Graeven, Ulrich Rodeck, Sonja Karpinski, Monika Jost, Stathis Philopou, and Wolff Schmiegel.
- 7291 Dynamics of Notch Expression during Murine Prostate Development and Tumorigenesis.** Jianyong Shou, Sarajane Ross, Hartmut Koeppen, Frederic J. de Sauvage, and Wei-Qiang Zhou.
- 7298 Generation of Multiple Angiogenesis Inhibitors by Human Pancreatic Cancer.** Oliver Kisker, Shiuya Onizuka, Jacqueline Banyard, Tomoko Komiyama, Christian M. Becker, Elke Gert Achilles, Carmen M. Barnes, Michael S. O'Reilly, Judah Folkman, and Steven R. Pipe-Sherpherd.
- 7305 Expression of Cyclooxygenase-2 and Inducible Nitric Oxide Synthase in Human Ovarian Tumors and Tumor-associated Macrophages.** Alida H. Kimpf, Harry Hollena, Claudia Kempinga, Ate G. J. van der Zee, Elisabeth G. E. de Vries, and Toos Daemen.
- 7310 Androgen Receptor Mediates the Reduced Tumor Growth, Enhanced Androgen Responsiveness, and Selected Target Gene Transactivation in a Human Prostate Cancer Cell Line.** Bekir Cinar, Kenneth S. Koonen, Magnus Edlund, Gail S. Prints, Hayeon E. Zhan, and Leland W. Chung.
- 7318 Insulin-like Growth Factor-I Induces Survival and Growth of Biologically Early Melanoma Cells through both the Mitogen-activated Protein Kinase and β -Catenin Pathways.** Kapetatu Satyamoorthy, Gang Li, Bhavesh Vaidya, Dipa Patel, and Meenhard Herlyn.
- 7325 Cables Enhances Cdk2 Tyrine 15 Phosphorylation by Wee1, Inhibits Cell Growth, and Is Lost in Many Human Colon and Squamous Cancers.** Chin-Lee Wu, Sandra D. Kirby, Hua Xiao, Yenning Chang, Daniel C. Chung, and Lawrence R. Zukerberg.
- 7333 Thioderoxin Expression in Primary T-Cell Acute Lymphoblastic Leukemia and Its Therapeutic Implication.** Li-en Shao, Mitchell B. Diccianni, Tetuya Tanaka, Ruby Grub, Alice L. Yu, Jeanette D. Pullen, Bruce M. Camitta, and John Yu.
- 7339 Tumor Necrosis Factor-related Apoptosis-inducing Ligand-induced Apoptosis of Human Melanoma Is Regulated by Smac/DIABLO Release from Mitochondria.** Xu Dong Zhang, Xi Yi Zhang, Christian P. Gray, Tam Nguyen, and Peter Hersch.
- 7349 Effects of Ras von Hippel-Lindau (Gorden B. Mills) on Hypoxia-inducible Factor (HIF-1 α , HIF-2 α), and Vascular Endothelial Growth Factor Expression and Their Regulation by the Phosphatidylinositol 3'-Kinase/Akt Signaling Pathway.** Christine Blancher, John W. Moore, Naomi Robertson, and Adrian L. Harris.
- 7356 Expression of the Antiangiogenic Factor 16K MPRL in Human HCT116 Colon Cancer Cells Inhibits Tumor Growth in *Rag1* $^{-/-}$ Mice.** Frauke Bentzen, Ingrid Struman, Jean-François Martin, Joseph Martial, and Richard Weiner.
- Letter to the Editor**
- 7363 Correspondence re: Akasaka, H., et al., Molecular Anatomy of BCL6 Translocations Revealed by Long-Distance Polymerase Chain Reaction-based Assays.** Cancer Res., 66: 2335-2341, 2006. Izikro S. Losos, Yakob Jacobs, Michael L. Cleary, Ronald Levy. **Reply.** Takashi Akasaka and Hitoshi Ohno.
- 7365 Announcements**
- Future Annual Meetings of the American Association for Cancer Research
AACR Special Conferences in Cancer Research
Recent Death
Calendar of Events
- 7367 Author Index**

October 15, Number 20

- 7379 Absence of Msh2 Protein Expression Is Associated with Alteration in the *PITX3* Locus and Fait Protein Expression in Colorectal Carcinoma.** Masaki Mori, Koshi Minori, Takanori Matsuda, Keiji Yoshimura, Keishi Yamashita, Ayumi Matsuyama, and Hiroshi Inoue.
- 7383 A Novel Growth Suppressor Gene on Chromosome 17p13.3 with a High Frequency of Mutation in Human Hepatocellular Carcinoma.** Xintao Zhao, Jinjin Li, Yinghua He, Fei Lan, Lili Fu, Jianying Guo, Ruojiao Zhao, Yun Ye, Mei He, Wenming Cheng, Jangguo Chen, Lisheng Zhang, Naoya Yang, Binghu Xu, Mengchao Wu, Dafang Wan, and Jian-ran Guo.
- 7388 Molecular Classification of Human Carcinomas by Use of Gene Expression Signatures.** Andrew I. Su, John B. Welsh, Lisa M. Sapinoso, Suzanne G. Kern, Petre Dimitrov, Hilmar Lapp, Peter G. Schultz, Steven M. Powell, Christopher A. Moskaluk, Henry F. Frierson, Jr., and Garret M. Hampton.
- 7394 Hypoxia-inducible Factor-1 α Is an Intrinsic Marker for Hypoxia in Cervical Cancer Xerographs.** Vojislav Vukovic, Hans Kristian Haugland, Trude Nickle, Andrew J. Morrison, and David W. Hedley.
- 7399 DNA Polymerase β Mediates Protection of Mammalian Cells against Cytotoxicity and DNA Breakage.** Maja T. Tomicic, Rudolf Thust, Robert W. Sobol, and Bernd Kaina.
- 7404 Age and TP73 Mutation Frequency in Childhood Malignant Gliomas: Results in a Multi-Institutional Cohort.** Ian F. Pollack, Sydney D. Finkelstein, Judith Burnham, Emiko J. Holmes, Ronald L. Hamilton, Allan J. Yates, Jonathan L. Finlay, and Richard Spoto, for the Children's Cancer Group.

CONTENTS OF VOLUME 61

- 7408 Tyrosin AG825 Triggers p38 Mitogen-activated Protein Kinase-dependent Apoptosis in Androgen-independent Prostate Cancer Cells C4 and C4-2.** Horacio Murillo, Lucy J. Schmidt, and Donald J. Tindall.
- 7413 E1A Inhibition of Radiation-induced NF- κ B Activity through Suppression of I κ B Kinase Activity and I κ B Degradation, Independent of Akt Activation.** Ruping Shao, Eng Mei Tsai, Kevin Wei, Ryan von Lindern, Yun-Hsiung Chen, Keishi Makino, and Mien-Chie Hung.
- 7417 Human Rad17 Is Phosphorylated upon DNA Damage and also Overexpressed in Primary Non-Small Cell Lung Cancer Tissues.** Xin Wang, Luo Wang, Matthew D. Callister, Joe B. Putnam, Li Mao, and Lei Li.
- 7422 Loss of Expression of the Metastasis Suppressor Gene Kif5b during Melanoma Progression and Its Association with LOH of Chromosome 6q16.3-q23.** Fumiaki Shirasaki, Minoru Takata, Naohisa Hatta, and Kazuhiko Takebara.
- 7426 The Phosphatidylinositol 3'-kinase β -Chain Gene is an Oncogene in Human Ovarian and Colon Tumors.** Amanda J. Philip, Ian G. Campbell, Christine Leet, Elizabeth Vincan, Steven P. Rockman, Robert H. Whitehead, Robert J. S. Thomas, and Wayne A. Phillips.
- 7430 Functional Significance of XPD Polymorphic Variants: Attenuated Apoptosis in Human Lymphoblastoid Cells with the XPD 312 Asp/Asp Genotype.** Hasan Seker, Dora Bukiwicz, Elise B. Bowmen, Mark Rusin, Mohammad Hedayati, Lawrence Grossman, and Curtis C. Harris.

Regular Articles

Carcinogenesis

- 7435 Inducible Expression of Transforming Growth Factor β 1 (TGF- β 1) in Papillomas Causes Rapid Metastasis.** Brian H. Weeks, Wei He, Krista L. Olson, and Xiao-Jing Wang.
- 7444 Oxidative Stress Increases Frasenshift Mutations in Human Colorectal Cancer Cells.** Christoph Gasche, Christina L. Chang, Jennifer Rhines, Ajay Goel, and C. Richard Boland.
- 7449 2-Difluoromethylthiidine and Dehydroendoperoxide Inhibits Mammary Tumor Progression but not Mammary or Prostate Tumor Initiation in CX11SV40 Tert-antigen Transgenic Mice.** Jeffrey E. Green, Masa-Aki Shibata, Eiko Shibata, Richard C. Moon, Miriam R. Anver, Gary Kelloff, and Ronald Lubet.
- 7456 Estrogenic and Antiestrogenic Properties of Resveratrol in Mammary Tumor Models.** Krishna P. L. Bhadra, Daniel Lantvit, Konstantin Christov, Rajendra G. Mehta, Richard C. Moon, and John M. Pezzuto.

Clinical Investigations

- 7464 A Phase I Trial of CV706, a Replication-competent, PSA Selective Oncolytic Adenovirus, for the Treatment of Locally Advanced Prostate Cancer following Radiotherapy.** Alexander J. Wolkewitz, van der Poel, Peter J. Slidje, Li-Bing Mikhael, Renée Drew, Marti Goemans, Ulrike Hamper, Robert Delong, Nicholas Detore, Ronald Rodriguez, Thomas Haak, Angelo M. DeMattia, Steven Piantadosi, D. C. Yu, Chen, Daniel R. Henderson, Michael A. Carducci, William G. Nelson, and Jonathan W. Simons.

Epidemiology and Prevention

- 7473 Chemopreventive Property of a Peptide (Lunasin) That Binds to Deacetylated Histones and Inhibits Acetylation.** Alfredo F. Galvez, Na Chen, Janet Maciasch, and Ben O. de Lumen.
- 7479 Enhanced Susceptibility of Human Oral Carcinomas to Induction of Apoptosis by Selenium Compounds: Involvement of Mitogen-activated Protein Kinase and Fas Pathways.** Aurnab Ghose, Janis Fleming, Karam El-Bayoumi, and Paul R. Harrison.
- 7488 The Effects of Catechol-Methyltransferase Inhibition on Estrogen Metabolite and Oxidative DNA Damage Levels in Estradiol-treated MCF-7 Cells.** Jackie A. Lavigne, Julie E. Goodman, Vicki Fonong, Shelly Owlin, Ping He, Dean W. Roberts, and James D. Yager.

Experimental Therapeutics

- 7495 Photosensitization with Zinc (II) Phthalocyanine as a Switch in the Decision between Apoptosis and Necrosis.** Clara Fabris, Giuliana Valduga, Giovanni Miotto, Laura Borsetti, Giulio Jori, Spiridon Garbisa, and Elena Realdi.
- 7501 Low-dose Chemotherapy Combined with an Antiangiogenic Drug Reduces Human Glione Growth in Vivo.** Lorenzo Bello, Giorgio Carrabba, Carlo Giussani, Valeria Lucini, Francesca Cerutti, Francesco Scaglione, Julian Landré, Mauro Puderi, Giustino Tomei, Roberto Villani, Rona S. Carroll, Peter McL Black, and Andreas Bikfalvi.

Advances in Brief

- 7709 A Proapoptotic Peptide for the Treatment of Solid Tumors.** Jeffrey C. Mai, Zhiqiao Mi, Soon-Hee Kim, Bokyung Ng, and Paul D. Robbins.
- 7713 Identification of a γ -Tubulin-binding Domain in BRCA1.** Li-Ching Hsu, Thao P. Doan, and Raymond L. White.
- 7719 Phenotypic Analysis of hMSH2 Mutations in Mouse Cells Carrying Human Chromosomes.** Giancarlo Marrà, Stefania D'Atri, Hai Yan, Claudia Perrera, Elsa Camavva, Bert Vogelstein, and Josef Jiricny.
- 7722 Up-Regulation of the Ectodermal-Neural Crest 1 (ENC1) Gene, a Downstream Target of the β -Catenin/T-Cell Factor Complex, in Colorectal Carcinomas.** Manabu Fujita, Youichi Furukawa, Tatsuhiko Tsunoda, Toshihiro Tanaka, Michio Ogawa, and Yusuke Nakamura.
- 7727 Somatic Mutations in the DNA Damage-Response Genes *ATR* and *CHK1* in Sporadic Stomach Tumors with Microsatellite Instability.** Anna Menoyo, Hafsa Alazraqui, Eloí Espín, Manel Armengol, Hiroyuki Yamamoto, and Simó Schwartz, Jr.
- 7731 Prognostic Value of Cytoplastic Fusions in Clear Cell Renal Cell Carcinoma: Gain of $Sq31$ -ster Predicts a Distinct Clinical Phenotype with Favorable Prognosis.** Bastian Gunawan, Wolfgang Huber, Meike Holzner, Anja von Heydebreck, Thomas Efferth, Annemarie Poulska, Rolf-Hermann Ringert, Gerhard Jakse, and László Füzesi.

- 7507 Preliminary Antitumor Activity of BMS-214662, a Highly Apoptotic and Novel Farnesytransferase Inhibitor.** William C. Rose, Francis Y. F. Lee, Craig R. Fairchild, Mark Lynch, Thomas Monticello, Robert A. Kramer, and Veeraswamy Manne.
- 7518 Inhibition of Growth, Invasion, and Metastasis of Human Pancreatic Carcinoma Cells by NKA in an Orthotopic Mouse Model.** Daisaku Tomioka, Naoki Maehara, Keiji Kubo, Kazuhiro Mizumoto, Masao Tanaka, Kunio Matsumoto, and Toshikazu Nakamura.
- 7525 The Farnesyl Protein Transferase Inhibitor SCH63636 Is a Potent Inhibitor of MDR1 Product P-glycoprotein.** Er-jia Wang, Christopher N. Casciano, Robert P. Clement, and William W. Johnson.
- 7530 Combined Intratumoral Injection of Bone Marrow-derived Dendritic Cells and Systemic Chemotherapy to Treat Pre-existing Murine Tumors.** Youzhong Wu, Wenru Song, and Ronald G. Crystal.
- 7536 Levels of Phospholipid Metabolites in Breast Cancer Cells Treated with Antimitotic Drugs: A 31 P-Magnetic Resonance Spectroscopy Study.** Marina Stein, Jack S. Cohen, Yael Mardor, Elisha Berman, and Israel Ringel.
- 7544 Overexpressed Androgen Receptor Linked to p21 $^{\text{WAF1}}$ Silencing May Be Responsible for Androgen Independence and Resistance to Apoptosis of a Prostate Cancer Cell Line.** Long G. Wang, Liliana Ossowski, and Anna C. Ferrari.
- 7552 Cross-resistance to the Synthetic Retinoid CD437 in a Paclitaxel-resistant Human Ovarian Carcinoma Cell Line Is Independent of the Overexpression of Retinoic Acid Receptor- γ .** Atul Kumar, Dianne R. Soprano, and Hemant K. Parekh.

Immunology

- 7556 Recombinant CD40 Ligand Therapy Has Significant Antitumor Effects on CD40-positive Ovarian Tumor Xenografts Grown in SCID Mice and Demonstrates an Augmented Effect with Cisplatin.** Sharad Gharamane, Bonnie L. Hylander, Ezgiol Ozluoglu, Sharashik Lele, William Fanslow, and Elizabeth A. Repasky.
- 7563 Administration of Interleukin-12 Enhances the Therapeutic Efficacy of Dendritic Cell-based Tumor Vaccines in Mouse Hepatocellular Carcinoma.** Tomohide Tasumi, Tetsuo Takebara, Tatsuya Kanto, Takuwa Miyagi, Noriyoshi Kuzushima, Yoshiko Sugimoto, Masahisa Jimusho, Akimori Kasahara, Yutaka Sasaki, Masatoshi Hori, and Norio Hayashi.
- 7568 The Infection of Human Dendritic Cells with Recombinant Avipox Vectors Expressing a Costimulatory Molecule Transgene (CD80) to Enhance the Activation of Antigen-specific Cytolytic T Cells.** Kwong Y. Tsang, Ming-Zhu Hu, Joss Evans, James Galley, Philip Arden, and Jeffrey Schlimm.
- 7577 Identification of Helper T-Cell Epitopes That Encapsulate or Lie Proximal to Cytotoxic T-Cell Epitopes in the gp100 Melanoma Tumor Antigen.** Hiroya Kobayashi, Jun Lu, and Esteban Celis.

Molecular Biology and Genetics

- 7585 Profiling of Cancer Cells Using Protein Microarrays: Discovery of Novel Radiation-regulated Proteins.** Arun Sreekumar, Mukesh K. Nyati, Soonyaryana Varanasi, Terrence R. Barrette, Debashis Ghosh, Theodore S. Lawrence, and Arul M. Chinnaiyan.
- 7594 Regulation of Human Telomerase Activity: Repression by Normal Chromosome 3 Abolishes Nuclear Telomerase Reverse Transcriptase Transcripts but Does Not Affect c-Myc Activity.** Anne-Lyre Ducrest, Mario Amacker, Yves D. Mathieu, Andrew P. Cuthbert, Deborah A. Trott, Robert F. Newbold, Markus Nahholz, and Joachim Lingner.
- 7603 Hypoxia-induced Enrichment and Mutagenesis of Cells That Have Lost DNA Mismatch Repair.** Akira Kondo, Rongzhan Safaci, Misaki Mishima, Haines Nieden, Xinjian Liu, and Stephen B. Howell.
- 7608 Spectrum of ATM Gene Mutations in a Hospital-based Series of Unselected Breast Cancer Patients.** Thilo Dörk, Regina Bendix, Michael Bremer, Dirk Radem, Karin Klöpper, Marion Nicke, Birte Skarvan, Ariadne Hector, Paria Yamini, Diana Steimann, Sabine Weise, Manfred Stührmann, and Johanna H. Karstens.
- 7616 Nonsense-causing APC Germline Mutations and Missense Repair Deficiency Play a Minor Role in APC-Mutant-negative Polyps.** Karl Heimann, Annick Thompson, Andreas Locher, Tamara Fulantetti, Eva Bader, Angela Wolf, Renzo Meier, Klaus Peter, Peter Baerwald, Giancarlo Maria, Hansjakob Müller, Dorothée Foerster, and Zuzana Dobbe.
- 7623 Detection of Mitochondrial DNA Mutations in Primary Breast Cancer and Fine-Needle Aspirates.** Paola Parella, Yan Xiao, Makiko Fliss, Monserrat Sanchez-Crespo, Paola Mazzarrelli, Monica Rinaldi, Theresa Nicol, Edward Gabrielson, Carmela Cuomo, Daniel Cohen, Sunil Pandit, Myla Spencer, Carla Rabitti, Vito Michele Fazio, and David Sidransky.

November 1, Number 21

- 7739 The Presence of Single Nucleotide Instability in Human Breast Cancer Cell Lines.** Naoko Watanabe, Eriko Okochi, Masataka Mochizuki, Takanori Sugimura, and Toshiharu Ushijima.
- 7743 High Frequency of Low-Level Microsatellite Instability in Early Colorectal Cancer.** Takeshi Kambara, Nagahiro Matsubara, Hitoshi Nakagawa, Kenji Notohara, Tetsushi Nagasaka, Tadashi Yoshino, Hiroshi Isozaki, Gerald F. Sharp, Jeremy Jass, Kenji Shimizu, and Noriaki Tanaka.

Regular Articles

Biochemistry and Biophysics

- 7747 Quantitative T1 ϕ Magnetic Resonance Imaging of E1-Tumors *in Vivo*: Detection of Early Response to Cyclophosphamide Therapy.** Umamaheswar Duvinuri, Harish Popat, Michael Feldman, Lydie Nadal-Desbarats, Michael S. Gee, William M. F. Lee, Ravinder Reddy, John S. Leigh, and Jerry D. Glickson.
- 7754 Polyamine Depletion in Human Melanoma Cells Leads to G1 Arrest Associated with Induction of p21 $^{\text{WAF1/CIP1/SDI1}}$ Changes in the Expression of p21-regulated Genes, and a Senescence-like Phenotype.** Debra L. Kramer, Bey-Dih Chang, Ying Chen, Paula Diegelman, Kersti Alm, Adrian R. Black, Igor B. Roninson, and Carl W. Porter.

9034

Tumor Biology

- 7627 Structural Fragility of Blood Vessels and Peritoneum in Calponin h1-deficient Mice, Resulting in an Increase in Hematogenous Metastasis and Peritoneal Dissemination of Malignant Tumor Cells.** Shun'ichiro Taniguchi, Michiko Takeoka, Tatsuki Ehara, Shigenari Hashimoto, Hiroto Shibuki, Nagahisa Yoshimura, Hidekazu Shigematsu, Katsuhiro Takahashi, and Motoyo Katsuki.
- 7635 Requirement for Mdm2 in the Survival Effects of Bcr-Abl and Interleukin 3 in Hematopoietic Cells.** Alexander W. Goetz, Heiko van der Kuip, Ruth Maya, Moshe Oren, and Walter E. Aulitzky.
- 7642 HDM2 Protein Overexpression, but not Gene Amplification, is Related to Tumorigenesis of Cutaneous Melanoma.** David Polish, Boris C. Bastian, Carole Hazan, Kate Melzer, Jason Pack, Alan Houghton, Klaus Busam, Carlos Cordon-Cardo, and Iman Osman.
- 7647 Akt1 Induces Extracellular Matrix Invasion and Matrix Metalloproteinase-2 Activity in Mouse Mammary Epithelial Cells.** Bae-Kyun Park, Xiao Zeng, and Robert I. Glazer.
- 7654 Mobilized Human CD34+ Hematopoietic Stem Cells Enhance Tumor Growth in a Numbosse Diabetic/Severe Combined Immunodeficient Mouse Model of Human Non-Hodgkin's Lymphoma.** Eveline S. J. M. de Jong, Jeroen E. J. Guikema, Frank Schepen, Tiny Merewiet, Willem A. Kamps, Edzo Vellenga, and Nico A. Bos.
- 7660 Neither p21 $^{\text{WAF1}}$ Nor 14-3-3 σ Prevents G2 Progression to Mitotic Catastrophe in Human Colon Carcinoma Cells after DNA Damage, But p21 $^{\text{WAF1}}$ Induces Stable G1 Arrest in Resulting Tetraploid Cells.** Paul R. Andreasson, Françoise B. Lacroix, Olivier D. Loebel, and Robert L. Margolis.
- 7669 Continuous Administration of Endostatin by Intraperitoneal Implanted Osmotic Pump Improves the Efficacy and Potency of Therapy in a Mouse Xenograft Tumor Model.** Oliver Kisker, Christian M. Becker, Daniela Prok, Michael Farnoczy, Robert D'Amato, Evelyn Flynn, William E. Fogler, B. Kim Lee Sim, Elizabeth N. Allred, Steven R. Pine-Shepherd, and Judith Folkman.
- 7675 Phosphorylation of Retinoid X Receptor α at Serine 260 Impairs Its Metabolism and Function in Human Hepatocellular Carcinoma.** Rie Matsushita-Nishiwaki, Masakazu Okuno, Seiji Adachi, Tetsuro Sano, Kunihiro Akita, Hisatomo Moriwaki, Scott L. Friedman, and Soichi Kojima.
- 7683 Genetic Subgroups of Anaplastic Astrocytomas Correlate with Patient Age and Survival.** Sandeep Kurwar, Gayatri Mohapatra, Andrew Bollen, Kathleen R. Lamborn, Michael Prados and Burt G. Feuerstein.
- 7689 Indomethacin-induced Radiosensitization and Inhibition of Ionizing Radiation-induced NF- κ B Activation in HeLa Cells Occur via a Mechanism Involving p38 MAP Kinase.** C. Matthew Braibury, Stephanie Markovic, S. Jack Wei, Luis M. Rene, Imran Zubari, Nobuo Horkoshi, and David Gius.

Letters to the Editor

- 7697 Correspondence re: N. C. Denko and A. J. Giaccia, Tumor Hypoxia, the Physiological Link between Trousseau's Syndrome (Carcinoma-induced Coagulopathy) and Metastasis.** Cancer Res., 61: 795-798, 2001. Georg-Friedrich von Tempelhoff, Lothar Hellmann, and Gerhard Hommel.
- 7699 Correspondence re: Y. Yamada et al., Frequent β -Catenin Gene Mutations in Colorectal Carcinomas: Possible Role for β -Catenin in the Development of Lesions Lacking Macroscopic Aberrant Crypt Foci Appearance.** In Rat Colon Carcinogenesis, Cancer Res., 61: 3323-3327, 2001; and Sequential Analysis of Morphological and Biological Properties of β -Catenin-accumulated Crypts, Provably Premalignant Lesions Independent of Aberrant Crypt Foci in Rat Colon Carcinogenesis, Cancer Res., 61: 1874-1878, 2001. Theresa P. Pretlow and Ranjana P. Bind. Reply by Yasuhiro Yamada, Yoshinobu Hirose, Akira Hara, and Hideki Mori.

7702 Announcements

- Future Annual Meetings of the American Association for Cancer Research
AACR Special Conferences in Cancer Research
Calendar of Events

7703 Errata

- K. Mishina et al., 61: 5349-5354, 2001.
G. S. Prins et al., 61: 6089-6097, 2001.

7705 Correction

- M. Jaiswal et al., 61: 6388-6393, 2001.

7706 Author Index

- 7763 P-Glycoprotein Does Not Reduce Substrate Concentration from the Extracellular Leaflet of the Plasma Membrane in Living Cells.** Yu Chen, Alok C. Pant, and Sanford M. Simon.

- 7770 Reversal of Mitomycin C Resistance by Overexpression of Bioreductive Enzymes in Chinese Hamster Ovary Cells.** Raymond P. Baumann, William F. Hodnick, Helen A. Sewell, Michael F. Belcourt, Sara Rockwell, David H. Sherman, and Alan C. Sartorelli.

- 7777 Pro-oxidant and Antioxidant Mechanisms of Etoposide in HL-60 Cells: Role of Myeloperoxidase.** Valerian E. Kagan, Alexander I. Kuzmenko, Yulia Y. Tyurina, Anna S. Shevedova, Tatjana Matsuura, and Jack C. Yalowich.

- 7785 Activation of Nuclear Factor κ B through the IKK Complex by the Topoisomerase Poisons SN38 and Doxorubicin: A Brake to Apoptosis in HeLa Human Carcinoma Cells.** Virginie Bottero, Valérie Busutil, Agnès Lobuat, Nicolas Magné, Jean-Louis Fischer, Gérard Milano, and Jean-François Peyron.

Carcinogenesis

- 7792 Identification of Tumor Markers in Models of Human Colorectal Cancer Using a 19,000-Element Complementary DNA Microarray.** Briti Hegde, Rong Qi, Renée Gaspard, Kristie Abernathy, Sonia Dharpur, Julie Andre-Hughes, Cheryl Gay, Nnenna U. Nwokeke, Tingan Chen, Alexander L. Saed, Vasily Sharov, Norman H. Lee, Timothy J. Yeatman, and John Quackenbush.

CONTENTS OF VOLUME 61

- 7798 The Role of *kPM5.1* and *kPM5.2* in Predisposing to Colorectal Cancer.**
- Tao Liu, Hai Yan, Shannon Kuusmanen, Antonio Percecote, Marie-Louise Bisgaard, Monica Pedroni, Piero Benatti, Kenneth W. Kinzler, Bert Vogelstein, Maurizio Ponz de Leon, Paivi Peltomaki, and Annika Lindblom.
- 7799 Biological Impact of Natural COOH-Terminal Deletions of Hepatitis B Virus X Protein in Hepatocellular Carcinoma Tissues.** Hong Tu, Celestino Bonura, Carlo Giannini, Hélène Mouly, Patrick Soussan, Michael Kew, Patrizia Paterlini-Béchot, Christian Bréchot, and Dina Kremsdorff.
- Clinical Investigations**
- 7811 Quantitative Expression of the Human Kallikrein Gene 9 (KLK9) in Ovarian Cancer: A New Independent and Prognostic Marker.** George M. Young, Linda C. Kyriakis, Antonia Sotiriou, Stefano Fracchioli, Bruno Ghiringhelli, Maryam Zarghani, Albert Chang, Maria Diandamis, Giorgio Giardina, Warner J. Hartwick, Giovanni Ricchard, Marco Massobrio, Eleftherios P. Diandamis, and Dionysios Karatasos.
- Epidemiology and Prevention**
- 7819 γ -Radiation-induced G2 Delay, Apoptosis, and p53 Response as Potential Susceptibility Markers For Lung Cancer.** Hua Zhao, Margaret R. Spitz, Gail E. Tomlinson, Huifeng Zhang, John D. Minna, and Xifeng Wu.
- 7825 A Single Nucleotide Polymorphism in the Matrix Metalloproteinase-1 Promoter Enhances Lung Cancer Susceptibility.** Yong Zhu, Margaret R. Spitz, Lei Lei, Gordon B. Mills, and Xiteng Wu.
- Experimental Therapeutics**
- 7830 Thrombospondin Type 1 Receptor Recombinant Proteins Inhibit Tumor Growth Through Transforming Growth Factor- β -dependent and -independent Mechanisms.** Wei-Min Mu, Wen Lin Sing, Mark Daquette, Patrick Lawler, Christiane Laus, and Jack Lawler.
- 7840 *Sf10-1* Gene-transfected Fibroblasts: A Wound-specific Gene Therapy Inhibits Local Cancer Recurrence.** Weige Yang, Shigeki Arii, Akira Mori, Katsuhiro Furumoto, Teizou Nakao, Naoki Isobe, Tora Murata, Hisashi Onodera, and Masayuki Imamura.
- 7846 Antiangiogenic Therapy of Established Tumors in Human Skin/Severe Combined Immunodeficiency Mouse Chimeras by Anti-Endoglin (CD105) Monoclonal Antibodies and Synergy between Anti-Endoglin Antibody and Cyclophosphamide.** Norihiko Takahashi, Akinao Haba, Fumihiro Matsuno, and Ben K. Seon.
- 7855 Antineoplastic Suppression of Human *Heparanase* Gene Expression Inhibits Plural Dissemination of Human Cancer Cells.** Fumio Uno, Muneyoshi Fujiwara, Yoshio Takata, Shoichiro Ohtani, Kou Katuda, Munetaka Takada, Taeko Okawa, Yoshio Naomoto, Motowo Nakajima, and Noriaki Tanaka.
- 7861 Eradication of Established Tumors by Vaccination with Venezuelan Equine Encephalitis Virus Replicon Particles Delivering Human Papillomavirus 16 E7 RNA.** Marwick P. Velders, Sue McElhinney, Maria C. Elinstina Cassetti, Gretchen L. Eiben, Terry Higgins, Rayne Kovacs, Amira G. Elinstina, W. Martin Kast, and Larry R. Smith.
- 7868 Therapeutic Efficacy of Acute Administration of N-Acetylcysteine as a Chemoprotector against Bone Marrow Toxicity after Intracardiac Administration of Alkylators, with or without Glutathione Depletion in a Rat Model.** Edward A. Neuwelt, Michael A. Pagel, Brant P. Hasler, Thomas G. Delsaughery, and Leslie L. Muldoon.
- Advances in Brief**
- 8051 Hydrogen Peroxide Mediates Activation of Nuclear Factor of Activated T Cells (NFAT) by Nickel Subsulfide.** Chunshu Huang, Jingxia Li, Max Costa, Zhuo Zhang, Stephen S. Leonard, Vincent Castranova, Val Vallyathan, and Guoqiang Sun.
- 8058 *In Situ* Expression of Interleukin-4 (IL-4) Receptors in Human Brain Tumors and Cytotoxicity of a Recombinant IL-4 Cytokine in Primary Glioblastoma Cell Cultures.** Bharat H. Joshi, Pamela Leland, Anthony Asher, Richard A. Payson, Frederick Varricchio, and Raj K. Puri.
- 8062 Disturbance of CHX2 by a Missense Mutation Associated with Li-Fraumeni Syndrome.** Sean Bong Lee, Sang Hyun Kim, Daphne W. Bell, Duke C. R. Wahler, Taryn A. Schiripo, Melissa M. Jorczak, Dennis C. Sgroi, Judy E. Garber, Frederick P. Li, Kim E. Nichols, Jenny M. Varley, Andrew K. Godwin, Kristen M. Shannon, Ed Harlow, and Daniel A. Haber.
- 8068 *WWOX*, the *FRA16D* Gene, Behaves as a Suppressor of Tumor Growth.** Andrej K. Bednarek, Catherine L. Keck-Waggoner, Rachael L. Daniel, Karen J. Larson, P. Leif Bergsgaard, Kaoru Kiguchi, Andrew J. Brenner, and C. Marcell Alzaia.
- 8074 Cytoplasmic Localization of the Oncogenic Protein Ski in Human Cutaneous Melanomas *In Vivo*: Functional Implications for Transforming Growth Factor β Signaling.** Jon A. Reed, Elise Bales, Weidong Xu, Nihal A. Okan, Debdutta Bandopadhyay, and Estela E. Medrano.
- 8079 LYVE-1 Is Not Restricted to the Lymph Vessels: Expression in Normal Liver Blood Sinusoids and Down-Regulation in Human Liver Cancer and Cirrhosis.** Carla Monta Careño, Silvia M. Nasser, Emmanuelle di Tommaso, Timothy P. Padera, Yves Boucher, Stanislav I. Tomarev, and Rakesh K. Jain.
- 8085 β -Catenin Expression Is Altered in Human Colonic Aberrant Crypt Foci.** Xing Pei Hao, Thomas G. Prellow, Jim Sunil Rao, and Theresa P. Pretlow.
- 8089 Expression of the Invasion Factor Lamatin zyx in Colorectal Carcinomas Is Regulated by β -Catenin.** Falk Hlubek, Andreas Jung, Nicole Kotzor, Thomas Kirchner, and Thomas Brabatz.
- 8094 Hypermethylation in Human Cancers of the *RIZ1* Tumor Suppressor Gene, a Member of a Histone-Protein Methyltransferase Superfamily.** Yong Du, Tobias Carling, Wei Fang, Zhe Piao, Jian-Chun Sheu, and Shu Huang.
- 8100 Mining the Melanome for Tumor Vaccine Targets: *P*-polypeptide Is a Novel Tumor-associated Antigen.** Christopher E. Toloukian, Wolfgang W. Leitner, Paul F. Robbins, Steven A. Rosenberg, and Nicholas P. Restifos.
- 8105 Comparative Analysis of Necrotic and Apoptotic Tumor Cells As a Source of Antigen(s) in Dendritic Cell-based Immunotherapy.** Yoshihito Kotera, Koichi Shimizu, and James J. Mulé.
- 7875 Prevention and Inhibition of Nasopharyngeal Carcinoma Growth by Anti-viral Phosphonated Nucleotide Analogs.** Shigeyuki Murono, Nancy Raab-Traub, and Joseph S. Pagano.
- 7878 Expression of *Clostridium Perfringens* Enterotoxin Receptors Claudin-3 and Claudin-4 in Prostate Cancer Epithelia.** Haiyan Long, Colin D. Crean, Wei-Hua Lee, O. William Cummings, and Theodore G. Gabig.
- 7882 A Midline Promoter-based Conditionally Replicative Adenovirus for Treatment of Pediatric Solid Tumors and Bone Marrow Tumor Purging.** Yaso Adachi, Paul N. Reynolds, Masato Yamamoto, Minghai Wang, Koshi Takayama, Shyuichiro Matoba, Takashi Muramatsu, and David T. Currol.
- Immunology**
- 7889 Evidence for an Antigen-driven Humoral Immune Response in Medullary Breast Cancer.** J. A. Coronella, P. Tellerman, G. A. Kingsbury, T. D. Truong, S. Hayes, and P. R. Junghans.
- 7890 Tumor Antigen Isolated from a Patient with Vitiligo and T-Cell-infiltrated Melanoma.** Yukiko Kinwa, Tomonobu Fujita, Masanori Akada, Keiichi Ito, Tomoko Shiohara, Yuriko Suzuki, Akifumi Yamamoto, Toshiaki Saito, and Yutaka Kawakami.
- 7898 Proteome-based Identification of Protein Gene Product 9.5 as a Tumor Antigen That Induces a Humoral Immune Response in Lung Cancer.** Franck Brichory, David Beer, François Le Naour, Thomas Giordano, and Samir Hanafi.
- 7913 Efficient Antigen Gene Transduction Using Arg-Gly-Asp-Mutant Adenovirus Vectors Can Potentiate Antitumor Vaccine Efficacy and Maturation of Murine Dendritic Cells.** Naoki Okada, Tomomi Saito, Yasuhisa Masunaga, Yukiko Tsukada, Shinako Nakagawa, Hiroyuki Mizuguchi, Kohji Mori, Yuiko Okada, Takuya Fujita, Takao Hayakawa, Tadanori Mayumi, and Akira Yamamoto.
- 7920 Immunization against Endogenous Retroviral Tumor-associated Antigen.** Michael H. Kershaw, Cary Hsu, Wallace Mondesire, Libbie L. Parker, Gang Wang, Willen W. Overwijk, Rejean Lapointe, James C. Yang, Gang-Fu Wang, Nicholas P. Restif, and Patrick Hwu.
- Molecular Biology and Genetics**
- 7925 Induction of G250-targeted and T-Cell-mediated Antitumor Activity against Renal Cell Carcinoma Using a Chimeric Fusion Protein Consisting of G250 and Granulocyte/Macrophage Colony Stimulating Factor.** Cho-Lea Tso, Alison Zisman, Allan Pantuck, Randy Callahan, Jose M. Hernandez, Sun Paik, David Nguyen, Barbara Gitlitz, Peter I. Shinkai, Jean de Kernion, Robert Fligiel, and Arie Belledreguim.
- 7934 The Distinct Spectrum of Tumor-associated *Apc* Mutations in Mice Defective in *Wnt* Signaling.** Michael S. Goto, Michael S. Sipione, and Michael S. Lisicki.
- 7943 Inactivation of Human *SRBC*, Located within the 11p15.5-15.4 Tumor Suppressor Region, in Breast and Lung Cancers.** Xie L. Xu, Leejoo C. Wu, Fengfei Gu, Arthur Davis, Michael Peyton, Yoshio Tomizawa, Anirban Maitra, Gail Tomlinson, Adi F. Gazdar, Bernard E. Weissman, Anne M. Bowcock, Richard Baer, and John D. Minna.
- 7950 Accumulation of Losses of Heterozygosity and Multistep Carcinogenesis in Pulmonary Adenocarcinoma.** Yasuyuki Arayagi, Tomoyuki Yokose, Yuko Minami, Atsushi Ochiai, Tatsumi Iijima, Yukio Morishita, Tatsuya Oda, Katsushi Fukao, and Masayuki Noguchi.
- November 15, Number 22**
- 8110 Modulation of the Immune Response by Systemic Targeting of Antigens to Lymph Nodes.** Martin Trepel, Wadah Arar, and Renata Pasqualini.
- 8113 O^6 -Methylguanine-DNA Methyltransferase Promoter Hypermethylation Shifts the *p53* Mutational Spectrum in Non-Small Cell Lung Cancer.** Patrick Wolf, Ying Chuan Hu, Kara Doffek, David Sidransky, and Steven A. Ahrendt.
- 8118 KIT Activation Is a Ubiquitous Feature of Gastrointestinal Stromal Tumors.** Brian P. Rubin, Samuel Singer, Connie Tsao, Anette Duesing, Marcia L. Brian, Robert Ruiz, Michaelle C. Hibbard, Chang-Jen Chen, Cheng Xiao, David A. Tiveyan, George D. Demetri, Christopher D. M. Fletcher, and Jonathan A. Fletcher.
- 8122 T-Cell Receptor γ Chain Alternate Reading Frame Protein (TARP) Expression in Prostate Cancer Cells Leads to an Increased Growth Rate and Induction of Caspase-3 and Apoptosis.** Curt D. Wolfgang, Magnus Essand, Byungkyu Lee, and Ira Pastan.
- Regular Articles**
- Carcinogenesis**
- 8127 Induction of Antitumor Immunity via Intra-tumoral Tetra-Costimulator Protein Transfer.** Guoming Zheng, Aosheng Chen, Raymond E. Sternier, Paul J. Zhang, Tao Pan, Nadya Kiyatkina, and Mark L. Tykocinski.
- 8135 Malignant Transformation in a Nontumorigenic Human Prostatic Epithelial Cell Line.** Simon W. Hayward, Yuzhuo Wang, Meiqi Cao, Yun Kit Hom, Baohua Zhang, Gary D. Grossfeld, Daniel Sudilovsky, Gerald R. Cunha.
- 8143 The Consequences of Chromosomal Aneuploidy on Gene Expression Profiles in a Cell Line Model for Prostatic Carcinogenesis.** John L. Phillips, Simon W. Hayward, Yuzhuo Wang, James Vasell, Christian Pavlovich, Hesel Padilla-Nash, John R. Perzillo, Michael Ghadimi, Gary D. Grossfeld, Alexandra Rivera, W. Marston Linehan, Gerald R. Cunha, and Thomas Ried.
- 8150 Induction of Melanoma in Murine Macrophage Inflammatory Protein 2 Transgenic Mice Heterozygous for Inhibitor of Kinase/Alternate Reading Frame.** Jinming Yang, Jing Luan, Yingchun Yu, Cunxi Li, Ronald A. DePinho, Lynda Chin, and Ann Richmond.
- 8158 UV-induced DNA Damage and Mutagenesis in Hopkins (Human *p53* Knock-in) Mice Recipient *p53* Hotspot Alterations in Sun-exposed Human Skin.** Jun-Liu Lu, Wei-Min Tong, Jung-Hoon Yoon, Manfred Hergenhahn, Rita Koomagi, Qin Yang, Daniel Galendo, Gerd P. Pfeifer, Zhao-Qi Wang, and Monica Hollstein.
- 8164 A New Selective and Potent Inhibitor of Human Cytochrome P450 1B1 and Its Application to Antimetastasis.** Young-Jin Choi, Sang-hee Kim, Donghak Kim, Sang-Kwang Lee, and F. Peter Guengerich.
- Experimental Therapeutics**
- 8171 Inhibition of Angiogenesis-driven Kaposis's Sarcoma Tumor Growth in Nude Mice by Oral N-Acetylcysteine.** Adriana Albinia, Monica Moroni, Francesco D'Agostini, Nicoleta Ferrari, Francesco Campelli, Giuseppe Arena, Douglas M. Noonan, Carlo Pesce, and Silvio De Flora.
- 8179 Quantitative Imaging and Microlocalization of Boron-10 in Brain Tumors and Infiltrating Tumor Cells by SIMS Ion Microscopy: Relevance to Neutron Capture Therapy.** Duane R. Smith, Subhash Chandra, Rolf F. Barth, Weilian Yang, Darrel D. Joel, and Jeffrey A. Codner.
- 8188 A Genetically Engineered Influenza A Virus with *rat-oncogene* Oncolytic Properties.** Michael Bergmann, Ingrid Rommel, Monika Sachet, Reinhard Fleischhacker, Adolfo Garcia-Sastre, Peter Palese, Klaus Wolff, Hubert Peberniger, Raimund Jaksch, and Thomas Müller.
- 8194 Molecular Basis for the Synergistic Interaction of Adriamycin with the Formamide-releasing Prodrug Pirafloxacinethyl Butyrate (AN-9).** Suzanne M. Catts, Ada Repacholi, Abraham Nudelman, Inesa Hmeltnitsky, and Don R. Phillips.
- 8203 The Phosphatidylserine 3'-Kinase/Akt Survival Pathway Is a Target for the Anticancer Radiosensitizing Agent PNC412, an Inhibitor of Protein Kinase C.** Angela Tenzer, Daniel Zingg, Sonia Rocha, Brian Hemmings, Doriano Fabris, Christoph Glanzmann, P. August Schubiger, Stephan Bodis, and Martin Prischy.
- 8211 Radiosensitization of *p53* Mutant Cells by PD0166285, a Novel G2 Checkpoint Abrogator.** Yuli Wang, Jun Li, Robert N. Broker, Alan Kraker, Theodore Lawrence, Wilbur R. Leo, and Yi Sun.
- Immunology**
- 8218 Phases of Apoptosis of Melanoma Cells, but not of Normal Melanocytes, Differently Affect Maturation of Myeloid Dendritic Cells.** Gabriella Pietra, Roberta Martorani, Giorgio Parmiani, and Andrea Anichini.
- 8227 Immunization with Wild-Type *p53* Gene Sequences Coadministered with Fl3 Ligand Induces an Antigen-specific Type I T-Cell Response.** Prahlad Parajuli, Vladimir Pisarev, Jennifer Sublet, Amy Steffel, Michelle Varney, Rakesh Singh, Drake LaFace, and James E. Talmadge.

CONTENTS OF VOLUME 61

Molecular Biology and Genetics

- 8235 New Amplified and Highly Expressed Genes Discovered in the *ERBB2* Amplicon in Breast Cancer by cDNA Microarray. Päivikki Kauranen, Maaria Bärlund, Outi Monni, and Anne Kallioniemi.
- 8241 Identification of Cytogenetic Subgroups and Karyotypic Pathways in Transitional Cell Carcinoma. Mattias Höglund, Torbjörn Sall, Sverre Heim, Felix Mitelman, Nils Mandahl, and Imaad Fadi-El-Etrou.
- 8247 Diverse Mechanisms of β -Catenin Derepression in Ovarian Endometrioid Adenocarcinomas. Rong Wu, Yali Zhao, Eric R. Fearon, and Kathleen R. Cho.
- 8256 p53R2-dependent Pathway for DNA Synthesis in a p53-regulated Cell Cycle Checkpoint. Tatsuya Yamaguchi, Koichi Matsuda, Yoji Sagiri, Manabu Iwadate, Masayuki A. Fujino, Yusuke Nakamura, and Hirofumi Arakawa.
- 8263 Independent Activation of Two Gene Clusters on Chromosome 4 in Rat Endometrial Cancer: Identification and Molecular Characterization. Anna Walentynowicz, Khalil Helou, Ville Wallenius, Hans J. Hedrich, Claude Szpirer, and Göran Levan.
- 8274 Intrachromosomal Genomic Instability in Human Sporadic Colorectal Cancer Identified by Genome-Wide Allelotyping and Inter-Simple Sequence Repeat (PCR). Garth R. Anderson, Bruce M. Brenner, Hellen Svendsen, Neng Chen, W. Michael Henry, Jeffrey M. Conroy, Matthew J. Karpenko, Jean-Pierre Issa, Jeremy D. Bartos, Joslyn K. Brunelle, Gerald P. Jahnisch, Morton S. Kahnberg, Mark Basik, Shelia Sait, Miguel A. Rodriguez-Bigas, Norma J. Nowak, Nicholas J. Petrelli, Thomas B. Shows, and Daniel L. Stoler.
- 8284 *p16INK4a* Lesions Are Common, Early Abnormalities that Undergo Clonal Expansion in Barrett's Metaplastic Epithelium. David J. Wong, Thomas G. Paubus, Laura J. Prevo, Patricia C. Galipeau, Gary Longton, Patricia L. Blount, and Brian J. Reid.

Advances in Brief

- 8357 Suppression of Intestinal Polyposis in *ApcMin/+* Mice by Inhibiting Nitric Oxide Production. Byungwoon Ahn and Hiroshi Ohshima.
- 8361 Heat Shock and Heat Shock Protein 70 Enhance the Oncolytic Effect of Replicative Adenovirus. Yosef S. Havid, Jerry L. Blackwell, Hui Li, Minghua Wang, Xiaosheng Lei, and David T. Curie.
- 8366 Equivalency Induction of Telomerase-specific Cytotoxic T Lymphocytes from Tumorigenic Patients and Non-tumorigenic Patients. Michael J. Condon, Joshua L. Sano, Karen S. Anderson, Brigitte Muecker, Marcus O. Butler, Zhihan Xia, Marcelo J. Kurada, Michael S. von Bergwein-Baldwin, Michelle M. Bedar, Kara M. Hour, Deborah R. Schnipper, Mary W. Brooks, Norman L. Levin, Katherine E. Stephan, Kai W. Wucherpfennig, William C. Hahn, and Lee M. Nadler.
- 8371 Fusion of ET6v to Fibroblast Growth Factor Receptor 3 in Peripheral T-cell Lymphoma with a t(4;12)(p1Kp1) Chromosomal Translocation. Fumiharu Yagasaki, Daisuke Wakao, Yasuko Yokoyama, Yumiko Uchida, Ikuo Murashita, Hidekazu Kayano, Masafumi Tanikawa, Akira Matsuda, and Masumi Bassho.
- 8375 Dissecting Complex Epigenetic Alterations in Breast Cancer Using CpG Island Microarrays. Pearlly S. Yan-Chun Mu Chex, Huikong Shi, Farahzad Rabhatpanah, Susan H. Wei, Charles W. Caldwell, and Tim Hui-Ming Huang.
- 8381 Decreased Expression of DNA-dependent Protein Kinase, a DNA Repair Protein, during Human Colon Carcinogenesis. Basil Rigas, Simona Borgo, Abdelmomen Elbassy, Vassilios Balatas, Zsuzsa Manika, Hiroto Shinya, Naoto Kurihara, Mae Guo, and Martin Lipkin.
- 8385 Decreased Focal Adhesion Kinase Suppresses Papilloma Formation during Experimental Mouse Skin Carcinogenesis. Gordon W. McLean, Ken Brown, Margaret J. Arbuckle, Anne W. Wyke, Timo Pikkariainen, Erkki Ruoslahti, and Margaret C. Frame.
- 8390 Akt Activation by Estrogen in Estrogen Receptor-negative Breast Cancer Cells. Eng-Mei Tsai, Shao-Chun Wang, Jau-Nan Lee, and Mien-Chie Hung.
- 8393 Germ-line HER-2 Variants and Breast Cancer Risk by Stage of Disease. Roberta McKean-Cowdin, Laurence N. Kolome, Michael F. Press, Malcolm C. Pike, and Brian E. Henderson.
- 8395 Inactivation of the Retinoblastoma Tumor Suppressor Induces Apoptosis Protease-activating Factor-1-dependent and Independent Apoptotic Pathways during Embryogenesis. Zhong Guo, Shu Yikang, Hiroki Yoshida, Tak W. Mak, and Eldad Zackenhaus.

- 8401 Frequent β -Catenin Mutation and Cytoplasmic/Nuclear Accumulation in Pancreatic Solid-Pseudopapillary Neoplasm. Yukimi Tanaka, Keisuke Kata, Kenji Notohara, Hiroshi Hojo, Rieko Iijima, Tetsumi Miyake, Noriyuki Nagahara, Fumitaka Sasaki, Norihiko Kitagawa, Yukio Nakatani, and Yasutomo Kobayashi.
- 8405 Microsatellite Mutation Rates Are Equivalent in Normal and Telomerase-immortalized Human Fibroblasts. Carmen N. Roques, Jayne C. Boyer, and Rosanna A. Barber.
- 8408 Computer Modeling Implicates Stem Cell Overproduction in Colon Cancer Initiation. Bruce M. Boman, Jeremy Z. Fields, Oliver Bonham-Carter, and Olaf A. Rungstedt.
- 8412 Arzoxifene, a New Selective Estrogen Receptor Modulator for Chemoprevention of Experimental Breast Cancer. Nanjoo Sub, Andrew L. Glassgow, Alan D. Palkowitz, Henry Y. Bryant, Lorris L. Burris, James J. Starling, Homer L. Pearce, Charlotte Williams, Christopher Peer, Yongping Wang, and Michael B. Sporn.

Regular Articles

- 8416 The Constitutive Photomorphogenesis 9 Signaling Directs Vascular Endothelial Growth Factor Production in Tumor Cells. Christian Pollmann, Xiaohua Huang, Julian Mall, Dawadshargal Bech-Oschr, Michael Naumann, and Wolfgang Dabhol.

Biochemistry and Biophysics

- 8290 Loss of DNA Mismatch Repair Impairs Defective cdc2 Signaling and G2 Arrest Responses without Altering Survival after Ionizing Radiation. Tao Yan, Jane E. Schupp, Hwa-shin Hwang, Mark W. Wagner, Suzanne E. Berry, Sue Strickland, Martina L. Veigt, William D. Sedwick, David A. Boothman, and Timothy J. Kinsella.
- 8298 Transgenic Polypoly: Middle-T Mice Model Premalignant Mammary Disease. Jeannie E. Maglione, Denee Moghanaki, Lawrence J. T. Young, Catherine K. Manner, Leslie G. Ellies, Sasha O. Joseph, Benjamin Nicholson, Robert D. Carrick, and Carol L. MacLeod.
- 8306 Transforming Growth Factor- β 1 Increases Survival of Human Melanoma Through Stromal Remodeling. Carla Berkling, Richelle Takemoto, Helmut Schaider, Louise Showe, Kapetatu Satyamoorthy, Paul Robbins, and Meenhard Herlyn.
- 8317 Increased p53 Mutation Frequency during Tumor Progression—Results from a Breast Cancer Cohort. Torbjörn Norberg, Sigrid Klaar, Gunilla Kärf, Hans Nordgren, Lars Holmberg, and Jöns Bergh.
- 8322 Induction of Glucosidase-regulated Protein 78 by Chronic Hypoxia in Human Gastric Tumor Cells through a Protein Kinase C- ϵ /ERK1/AP-1 Signaling Cascade. Min Sung Song, Yoon Keun Park, Je-Ho Lee, and Kyungsuk Park.
- 8331 Heterogeneous Transforming Growth Factor (TGF)- β Unresponsiveness and Loss of TGF- β Receptor Type II Expression Caused by Histone Deacetylation in Lung Cancer Cell Lines. Hirotaka Osada, Yoshiro Tatematsu, Akira Masuda, Toshiko Saito, Miyabi Sugiyama, Kiyoishi Yanagisawa, and Tatsushi Takahashi.
- 8422 Doxorubicin Irreversibly Inactivates Iron Regulatory Proteins 1 and 2 in Cardiomyocytes: Evidence for Distinct Metabolic Pathways and Implications for Iron-mediated Cardiotoxicity of Antitumor Therapy. Giorgio Minotti, Raffaella Ronchi, Emanuela Salvatorelli, Pierantonio Menna, and Gaetano Cairo.
- 8429 Fatty Acid CoA Thioester Is Up-Regulated in Colon Adenocarcinoma. Yang Cao, Kavita B. Dave, Thao P. Doan, and Stephen M. Prescott.
- 8435 Differential Effects of CYP2E1 Status on the Metabolic Activation of the Colon Carcinogen Azoxymethane and Methylazoxymethanol. Ock Soon Sohn, Emerich S. Fiala, Silvia P. Requejo, John H. Weisburger, and Frank J. Gonzalez.
- 8448 Abnormal Expression of 17 β -Hydroxysteroid Dehydrogenases in Breast Cancer Predicts Late Recurrence. Cecilia Gunnarsson, Birgit M. Olsson, Olle Stål, and Members of the Southeast Sweden Breast Cancer Group.
- 8452 HER-2 Amplification Impedes the Antiproliferative Effects of Hormone Therapy in Estrogen Receptor-positive Primary Breast Cancer. Mitch Dowsett, Catherine Harper-Wynne, Irene Boeddinghaus, Janine Salter, Margaret Hills, Mike Dixon, Steve Ebbs, Gerald Gui, Nigel Sacks, and Ian Smith.
- 8457 Serological Evidence of Herpes Simplex Virus 1 Infection and Oropharyngeal Cancer Risk. Jacqueline R. Starr, Janet R. Daling, E. Dawn Fitzgibbons, Margaret M. Madeleine, Rhoda Ashley, Denise A. Galloway, and Stephen M. Schwartz.
- 8465 Sensitivity to Benzopyrene Diol-Epoxide Associated with Risk of Breast Cancer in Young Women and Modulation by Glutathione S-Transferase Polymorphisms: A Case-Control Study. Ping Xiong, Melissa L. Bondy, Donghui Li, Hongbing Shen, Li-E Wang, S. Eva Singletary, Margaret R. Spitz, and Qiangyin Wei.
- 8470 RNA Replicons Derived from Poliovirus Are Directly Oncolytic for Human Tumor Cells of Diverse Origins. David C. Ansardi, Donna C. Porter, Cheryl A. Jackson, G. Yancey Gillespie, and Casey D. Morrow.
- 8480 Inhibition of Angiogenesis and Metastasis in Two Murine Models by the Matrix Metalloproteinase Inhibitor, BMS-275291. Joseph G. Naglich, Maria Juno-Kunkel, Elena Gupta, Joseph Farnol, Arris J. Henderson, Anne C. Lewin, Randy Talbott, Andy Baker, John Bird, Ranjev Saparovpolous, Ruth Wills, Robert A. Kramer, and Pamela A. Trall.
- 8486 Antisense Oligodeoxynucleotide Targeted to Midline: a Herparin-binding Growth Factor, Suppresses Tumorigenicity of Mouse Rectal Carcinoma Cells. Yoshitomo Takei, Keiji Kadomatsu, Seiichi Matsuo, Hiroshi Itoh, Kunihiko Nakazawa, Shunichiro Kubota, and Tatsushi Matsumura.
- 8492 The Histone Deacetylase Inhibitor Suberoylanilide Hydroxamic Acid Induces Differentiation of Human Breast Cancer Cells. Pamela N. Munster, Tiffany Tros-Sandoval, Neal Rosen, Richard Rifkind, Paul A. Marks, and Victoria M. Richon.
- 8494 MIG (CXCL9) Chemokine Gene Therapy Combines with Antibody-Cytokine Fusion Protein to Suppress Growth and Dissemination of Murine Colon Carcinoma. J. Michael Ruehle, Rong Xiang, Andreas G. Niethammer, Yi Bi, Ursula Pentl, Carrie S. Dolman, Stephen D. Gillies, and Ralph A. Reisfeld.
- 8496 Reelin-related Molecules Induce Cytochrome c Release and Apoptosis through Activation of c-Jun NH₂-Terminal Kinase/p38 Mitogen-activated Protein Kinase. Maria A. Ortiz-Perez, Francisco J. Lopez-Hernandez, Yolanda Bayon, Magnus Pfahl, and A. Javier Piedrafita.
- 8500 Endothelin-1 Induces Tumor Proteinase Activation and Invasiveness of Ovarian Carcinoma Cells. Laura Rosano, Marco Varmi, Debora Salani, Valeriana Di Castro, Francesca Spinella, Pier Giorgio Natali, and Anna Bagato.
- 8508 Letters to the Editor
- 8517 Correspondence re: J. W. Baish and R. K. Jain, Fractals and Cancer. *Cancer Res.*, 60: 3683–3688, 2000. Hsiao-Wen Chung and Hsiao-Jen Chung.
- 8518 Response to Correspondence from Chung and Chung re: J. W. Baish and R. K. Jain. *Fractals and Cancer*. *Cancer Res.*, 60: 3683–3688, 2000. J. W. Baish and R. K. Jain.
- 8519 *TBR-1/64*: Polymorphism Is not a Tumor Susceptibility Allele in Macedonian Colorectal Cancer Patients. Correspondence re: B. Pasche *et al.* Type 1 *TBR-1/64* Is a Candidate Tumor Susceptibility Allele. *Cancer Res.*, 58: 2727–2732, 1998. Ana-Maria Stefanovska, Georgi D. Efremov, Aleksandar J. Dimovski, Djingsa Jasar, Gjorgi Zografski, Toni Josifovski, Milco Panovski, Renata Jankova, and Mirko Spirkoski. Reply: *TBR-1/64* Association with Colorectal Cancer: A New Twist? Boris Pasche, Prema Kolachana, and Kenneth Offit.
- 8525 8353 Announcements
- Future Annual Meetings of the American Association for Cancer Research
AACR Special Conferences in Cancer Research
Calendar of Events
- 8534 Author Index
- 8535 Immunology
- 8536 Vaccination of Pediatric Solid Tumor Patients with Tumor Lysate-pulsed Dendritic Cells Can Expand Specific T Cells and Mediate Tumor Regression. James D. Geiger, Raymond J. Hutchinson, Lyndon F. Hohenkirk, Elizabeth A. McKenna, Gregory A. Yanik, John E. Levine, Alfred E. Chang, Thomas M. Braun, and James J. Mulé.
- 8537 A New Mouse Model for Evaluating the Immunotherapy of Human Colorectal Cancer. Heidi Hörg, Alberto Wainstein, Li Long, Doron Kahn, Sandeep Soni, Akiva Marcus, Winfried Edelmann, Raju Kucherlapati, and Howard L. Kaufman.
- 8538 Molecular Biology and Genetics
- 8539 Aberrations in the *Fragile Histidine Triad (FHT)* Gene in Idiopathic Pulmonary Fibrosis. Kazutomo Uematsu, Akinobu Yoshimura, Akihiko Gemma, Hiroshi Mochimaru, Yoko Hosoya, Shigenobu Kunugi, Kotaro Matsuda, Masaharu Seike, Fumio Kurimoto, Kiyoshi Takenaka, Kiyoshi Koizumi, Yuh Fukuda, Shigeo Tanaka, Koer Chin, David M. Johnson, and Shoji Kubodera.
- 8540 Novel Target Genes of the Ah (Dioxin) Receptor: Transcriptional Induction of *N-Mycistatin/Peripherazine 2*. Siva Kumar Koluri, Carolin Balduf, Martin Hofmann, and Martin Göttlicher.
- 8541 Identification and Characterization of Differentially Methylated CpG Islands in Pancreatic Carcinoma. Takashi Ueki, Minoru Toyota, Hal Skinner, Kimberly M. Walter, Charles J. Yeoh, Jean-Pierre J. Issa, Ralph H. Huban, and Michael Grogan.
- 8542 Molecular Analysis of Single Colonies Reveals a Diverse Origin of Initial Clonal Proliferation in B-Precursor Acute Lymphoblastic Leukemia that Can Precede the t(12;21) Translocation. Victoria J. Weston, Carmel McConville, Jillian R. Mann, Philip J. Darbyshire, Sarah Lawson, John Gordon, Paul A. H. Moss, A. Malcolm R. Taylor, and Tatjana Stanjkovic.
- 8543 Replication Protein A2 Phosphorylation after DNA Damage by the Coordinated Action of Ataxia-Telangiectasia-Mutated and DNA-dependent Protein Kinase. Hongyan Wang, Jun Guan, Huichen Wang, Ange Ronel Perault, Ya Wang, and George Iliakis.
- 8544 Transient Expression of Cyclin D1 Is Sufficient to Promote Hepatocyte Replication and Liver Growth *In Vivo*. Christopher J. Nelson, David G. Richkhelm, Nikolai A. Timchenko, Michael W. Stanley, and Jeffrey H. Albrecht.
- 8545 Epidemiology and Prevention
- 8546 Vascular Endothelial Growth Factor Isoforms Display Distinct Activities in Promoting Tumor Angiogenesis at Different Anatomic Sites. Ping Guo, Li Xu, Shi Pan, Rolf A. Brekken, Shu-Ting Yang, G. Brian Whittaker, Motoo Nagano, Philip E. Thorpe, Jan S. Rosenbaum, H.-J. Su Huang, Webster K. Cavener, and Shi-Yuan Cheng.
- 8547 Differential Expression of Manganese Superoxide Dismutase and Catalase in Lung Cancer. James Chang-man Ho, Shao Zheng, Suzy A. A. Comhair, Carol Farver, and Serpil C. Erzurum.
- 8548 Interference of Tenascin-C with Syndecan-4 Binding to Fibronectin Blocks Cell Adhesion and Stimulates Tumor Cell Proliferation. Wentao Huang, Ruth Chiquet-Ehrmann, José V. Moyano, Angeles Garcia-Pardo, and Gertrud Orrend.
- 8549 Letters to the Editor
- 8550 Correspondence re: F. Coulet *et al.*, Detection of Plasma Tumor DNA in Head and Neck Squamous Cell Carcinoma by Microsatellite Typing and p53 Mutation Analysis. *Cancer Res.*, 60: 707–709, 2000. Jose M. Silva and Felicia Bonilla. Reply, Hélène Bloms, Philippe Coulet, and Pierre Laurent-Puig.
- 8551 Announcements
- Future Annual Meetings of the American Association for Cancer Research
AACR Special Conferences in Cancer Research
Recent Deaths
Calendar of Events
- 8552 Author Index

Review

- 8601 Insulin-like Growth Factor-binding Protein 2 in Tumorigenesis: Professor or Promoter?** Andreas Heidrich, Raoul Reutter, Harald Laber, Winfried Kiess, Werner F. Blum, Helmut J. Kolb, Matthias M. Weber, and Eckhard Wolf.

Advances in Brief

- 8611** Reversal of *GSTP1* CpG Island Hypermethylation and Reactivation of n-Class Glutathione S-Transferase (*GSTM1*) Expression in Human Prostate Cancer Cells by Treatment with Procainamide. Xiaohui Lin, Kekule Asgari, Mathew J. Putzi, Wesley R. Gage, Xiang Yu, Brian S. Compton, Arunima Kumar, Steven Pianalto, Theodore M. DeWeese, Angelo M. De Marzo, and William G. Nelson.

- 8617 Cyclooxygenase-2 Is Up-Regulated in Proliferative Inflammatory Murphy of the Prostate, but not in Prostatic Carcinoma. Shan Zhu, Wesley R. Gage, Junga Suavaggio, Elizabeth A. Sarra, Mathew J. Putzi, Charles M. Ewing, Dennis A. Fath, William G. Nelson, Angelo M. De Marzo, and William B. Isaacs.**

- 8624 Gastrointestinal Stromal Tumors with *KIT* Mutations Exhibit a Remarkably Homogeneous Gene Expression Profile. Susanne V. Allander, Nina N. Nuppen, Markus Ringnér, Galen Hosterter, Greg W. Maher, Natalie Goldberger, Yidong Chen, John Carpenter, Abdel G. Elakhaloun, and Paul S. Meltzer.**

- 8629 A Receptor for Vascular Endothelial Growth Factor That Stimulates Endothelial Apoptosis. Timothy P. Quinn, Scott J. Soifer, Kevin Ranier, Lewis T. Williams, and Mary C. Nakamura.**

- 8638 Boron Neutron Capture Therapy for the Treatment of Oral Cancer in the Hamster Cheek Pouch Model. Erica L. Kreimann, Maria E. Itzic, Juan Longhino, Herman Blaumann, Osvaldo Calzetta, and Amanda E. Schwitt.**

- 8643 Depletion of CD25⁺ CD4⁺ T Cells and Treatment with Tyrosine-related Protein 2-transduced Dendritic Cells Enhance the Interferon- α -induced, CD8⁺ T-cell-dependent Immune Defense of B16 Melanoma. Julia Stietz, Jürgen Brück, Julia Lenz, Jürgen Knop, and Thomas Tüting.**

- 8647 Immune Escape of Melanoma: First Evidence of Structural Alterations in Two Distinct Components of the MHCI Class I Antigen Processing Pathway. Barbara Seliger, Ulrike Ritz, Rupert Albeck, Michaela Bock, Robert Tampe, Gert Sutter, Ingo Drexl, Christoph Huber, and Soltano Ferrone.**

- 8651 Loss of Heterozygosity of the Putative Prostate Cancer Susceptibility Gene *HPC2/ELOC2* Is Uncommon in Sporadic and Familial Prostate Cancer. Yu-Qun Wu, Hong Chen, Mark A. Rubin, Kirk J. Wojno, and Kathleen A. Cooney.**

- 8654 A *Xeroderma Pigmentosum Group D* Gene Polymorphism Predicts Clinical Outcome to Platinum-based Chemotherapy in Patients with Advanced Colorectal Cancer. David J. Park, Jan Stoehlmacher, Wu Zhang, Denice D. Tsao-Wei, Susan Groshen, and Heinz-Josef Lenz.**

- 8659 Aberrant Promoter Methylation Patterns of Bladder Cancer and Its Relationship to Clinicopathological Features. Kichisuke Manuyama, Shinichi Toyooka, Kiyomi O. Toyooka, Kenichi Harada, Arvind K. Virmani, Sabine Zschöbauer-Müller, Alfredo J. Farina, Funda Vakar-Lopez, John D. Minna, Arthur Sagarlam, Bogdan Czerniak, and Adri F. Gordan.**

- 8664 Evidence That APC Regulates Survivin Expression: A Possible Mechanism Contributing to the Stem Cell Origin of Colon Cancer. Tao Zhang, Tomas Otevel, Zhengqiang Gao, Zhiping Guo, Sandra M. Ehrlich, Jeremy Z. Fields, and Bruce M. Boman.**

Regular Articles

Biochemistry and Biophysics

- 8668 Kinase Suppressor of Ras Determines Survival of Intestinal Epithelial Cells Exposed to Tumor Necrosis Factor. Fang Yan, Sutha K. John, and D. Brent Pock.**

- 8676 Pleiotropic Inhibition of Pericellular Urokinase-type Plasminogen Activator System by Endogenous Tumor Suppressive Maspin. Hector Biliran, Jr., and Shijie Sheng.**

Carcinogenesis

- 8683 LAS, a Novel Selective Estrogen Receptor Modulator with Chemospreventive and Therapeutic Activity in the N-Nitroso-N-methyl-N-phenylimidazo[4,5-h]pyridine: Perinatal Susceptibility, Regional Variation, and Correlation with DNA Adducts. Inger-Lise Steffensen, Herman A. J. Schut, Jan Erik Pauslen, Åshild Andreassen, and Jan Alexander.**

Clinical Investigations

- 8697 Normalization of Elevated Hepatic 8-Hydroxy-2'-Deoxyguanosine Levels in Chronic Hepatitis C Patients by Phlebotomy and Low Iron Diet. Junji Kato, Masayoshi Kobori, Tokiko Nakamura, Ganji Kurouwa, Kohichi Takada, Rishi Takimoto, Yasuhiro Saito, Koshi Fujikawa, Minoru Takahashi, Tetsuji Takayama, Tatsuro Ikeda, and Yoshiro Nitto.**

December 15, Number 24

Endocrinology

- 8703 Synergistic Cytotoxicity Exhibited by Combination Treatment of Selective Retinoid Ligands with Taxol (Paclitaxel). Valerie Vivat-Hannah, Dan You, Cheryl Rizzo, Jean-Paul Darti, Philippe Lapointe, F. Christopher Zusi, Anne Marinier, Matthew V. Lorenzi, and Marco M. Gottardis.**
- 8712 Glucocorticoids? Janus Androgenic Activity in a Cell Line Derived from a Metastatic Prostate Cancer. Ching-Yi Chang, Philip J. Walther, and Donald P. McDonnell.**

Epidemiology and Prevention

- 8718 Differential Association of the Codon 72 p53 and *GSTM1* Polymorphisms on Histological Subtype of Non-Small Cell Lung Carcinoma. Geoffrey Liu, David P. Miller, Wei Zhou, Sally W. Thurston, Fan Li-Li Xu, Thomas J. Lynch, John C. Wain, Li Su, and David C. Christiani.**

Experimental Therapeutics

- 8723 Interaction of p53 and DNA-PK in Response to Nucleoside Analogs: Potential Role As a Sensor Complex for DNA Damage. Geetha Achanta, Helen Pelizzetti, Li Feng, William Plunkett, and Peng Huang.**

- 8730 Simultaneous Inhibition of Glomerular Angiogenesis, Cell Proliferation, and Invasion by a Naturally Occurring Fragment of Human Metalloproteinase-2. Lorenzo Bellotti, Valeria Lucini, Giorgio Carabba, Carlo Giussani, Marcelle Machilù, Mauro Puledri, Demetrios Nikas, Jianping Zhang, Gustavo Tomei, Roberto M. Villani, Rossella Carroli, Andreas Bikfalvi, and Peter M. Black.**

- 8737 Human Angiogenin Fused to Human CD30 Ligand (Ang-CD30L) Exhibits Specific Cytotoxicity against CD30-positive Lymphoma. Michael Huhn, Stephanie Sasse, Mehmet K. Tur, Bärbel Matthey, Timo Schinko, Susanna M. Rybák, Stefanie Barth, and Andreas Engert.**

- 8743 Treatment of Malignant Gliomas with a Replicating Adenoviral Vector Expressing Herpes Simplex Virus-Thymidine Kinase. Dharmvir Nanda, Ronald Vogels, Menzo Havenga, Coes J. Avezatt, Abraham Bout, and Peter Sillevius Smits.**

- 8751 Systemic Cancer Therapy with a Tumor-selective Vaccinia Virus Mutant Lacking Thymidine Kinase and Vaccinia Growth Factor Genes. J. Andrea McCart, Jerrold M. Ward, John Lee, Yun He, H. Richard Alexander, Steven K. Libutti, Bernard Moss, and David L. Bartlett.**

- 8758 Evaluation of Kinesin-Protein Transferase and Geranylgeranyl-Protein Transferase Inhibitor Combinations in Preclinical Models. Robert B. Lobell, Charles A. Omer, Marc A. Abrams, Hema G. Bhattacharjee, Mary Jo Bricker, Carolyn A. Buser, Joseph P. Davide, S. Jane deSantis, Christopher J. Dinsmore, Michelle S. Ellis-Hutchings, Astrid M. Kral, Dongming Liu, William C. Lumma, Samuel V. Mchosta, Elaine Rands, Theresa M. Williams, Samuel L. Graham, George D. Hartman, Allen I. Oliff, David C. Hemphrok, and Nancy E. Kohl.**

- 8769 Induction of Immunity in Peripheral Tissues Combined with Intracranial Transplantation of Interleukin-2-producing Cells Eliminates Established Brain Tumors. Yasuo Iwadate, Akira Yamaura, Yasuo Sato, Shigeru Sakayama, and Masatoshi Tagawa.**

- 8775 The Hamster Cheek Pouch as a Model of Oral Cancer for Boron Neutron Capture Therapy Studies: Selection of Delivery of Boron by Boronophenylamine. Erica L. Kreimann, Maria E. Itzic, Alejandra Drogos, Ricardo Garavaglia, Silvia Farías, Daniel Batistoni, and Amanda E. Schwitt.**

- 8782 o-Fetoprotein-specific Tumor Immunity Induced by Plasmid Prime-Adenovirus Boost Genetic Vaccination. Wilson S. Meng, Lisa H. Gafford, Antoni Ribas, Vivian B. Dissette, Justin B. Heller, Gustavo A. Miranda, John A. Glaspy, William H. McBride, and James S. Economou.**

Immunology

- 8787 CD40 Cross-Linking Bypasses the Absolute Requirement for CD4 T Cells during Immunotherapy with Melanoma Antigen. Gross-modified Dendritic Cells. Antoni Ribas, Lisa H. Gafford, Sallie N. Amarnani, Vivian B. Dissette, Donald Kim, Wilson S. Meng, Gustavo A. Miranda, He-Jing Wang, William H. McBride, John A. Glaspy, and James S. Economou.**

- 8794 The Dynamics of the CD-T Cell-Adjuvant Response: Chemokine-secreting Dendritic Cells Can Prime Tumor-reactive T Cells Extramedullarily. Christopher J. Kirk, Dennis Hartigan-O'Connor, and James J. Mulé.**

Molecular and Genetics

- 8803 Expression of Id Helix-Loop-Helix Proteins in Colorectal Adenocarcinoma Correlates with p53 Expression and Mitotic Index. James W. Wilson, Richard W. Deed, Toshiaki Inoue, Mamela Balzi, Aldo Becciolini, Paola Faraci, Christopher S. Poteri, and John D. Norton.**

- 8811 Regulation of Cyclin D1 and p16^{INK4A} Is Critical for Growth Arrest during Mammary Involution. Michele Gaddi, Carmen Pisic, John Branda, Viviana Ionescu-Tiba, Zeljko Nikolic, Chuanyue Yang, Timothy Wang, Gregory M. Shackelford, Robert D. Cardiff, and Emmett V. Schmidt.**

- 8820 The FOXP1 Winged Helix Transcription Factor Is a Novel Candidate Tumor Suppressor Gene on Chromosome 3p. Alison H. Banham, Nigel Beasley, Elias Campo, Pedro L. Fernandez, Carrie Fidler, Kevin Gatter, Margaret Jones, David Y. Mason, John E. Prime, Philippe Trougoueff, Karina Wood, and Jacqueline L. Cordell.**

- 8830 Overexpression of p21^{WAF1/CIP1} Is an Early Event in the Development of Enteric Interspersed Neoplasia. Andrew V. Blatnik, James G. Korch, Adrienne L. Morey, C-Soo Lee, Sandra A. Blatnik, Darren R. Head, Thomas B. Hugh, Susan M. Henshall, and Robert L. Sutherland.**

- 8838 Derivation of Human Tumor Cells *in Vitro* without Widespread Genomic Instability. Dragan Zimonjic, Mary W. Brooks, Nicholas Popescu, Robert A. Weinberg, and William C. Hahn.**

- 8845 Detection of Occult Metastatic Breast Cancer Cells in Blood by a Multimolecular Marker Assay: Correlation with Clinical Stage of Disease. Bret Taback, Arden D. Chan, Christine T. Kue, Peter J. Bostick, He-Jing Wang, Armando E. Giuliano, and Dave S. B. Hoon.**

- 8851 Autocrine Production of Interleukin-6 Causes Multidrug Resistance in Breast Cancer Cells. Dietrich Conze, Linda Weiss, Patricia Susan Regen, Alok Bhushan, Donald Weaver, Peter Johnson, and Mercedes Rincon.**

- 8859 The Role of Tumor Necrosis Factor Signaling Pathways in the Response of Murine Brain to Irradiation. Jennifer L. Daigle, Ji-Hong Hong, Chi-Shun Chang, and William M. McBride.**

- 8866 Predisposition to Efficient Mammary Tumor Metastatic Progression Is Linked to the Breast Metastasis Suppressor Gene *Bmzf1*. Kent W. Hunter, Karl W. Brown, Thomas Le Voyer, Luanne Lukes, Diana Cozma, Michael T. Debies, Jessica Rouse, and Danny R. Welch.**

Tumor Biology

- 8873 Novel Transmembrane GTPase of Non-Small Cell Lung Cancer Identified by mRNA Differential Display. Jing-Gung Chung, Kun-Tu Yeh, Shih-Lu Wu, Nan-Yung Hu, Guang-Wei Chen, Yea-Wen Yeh, and Heng-Chen Ho.**

- 8880 Deleted in Malignant Brain Tumors 1 Is a Versatile Mucin-like Molecule Likely to Play a Differential Role in Digestive Tract Cancer. Jan Möllerhauser, Stephan Herberz, Burkhard Helmke, Gabi Kollender, Inge Krebs, Jens Madsen, Ulf Holmskov, Karin Sorger, Liane Schmidt, Stefan Wiemers, Hervé F. Ottet, Hermann-Josef Gröne, and Annemarie Poussin.**

- 8887 Epidermal Growth Factor Receptor (HER1) Tyrosine Kinase Inhibitor ZD1839 (Iressa) Inhibits HER2/neu (erbB2)-overexpressing Breast Cancer Cells *in Vitro* and *in Vivo*. Stacy L. Moulder, F. Michael Yakes, Senthil K. Muthuswamy, Roberto Bianco, Jean F. Simpson, and Carlos L. Arteaga.**

- 8896 Suppression of Membrane-type 1 Matrix Metalloproteinase (MMP)-mediated MMP-2 Activation and Tumor Invasion by Testican 3 and Its Splicing Variant Gene Product. N-Tes. Mitsuharu Nakada, Akio Yamada, Takahisa Takino, Hisashi Miyamoto, Tomoya Takahashi, Junichiro Yamashita, and Hiroshi Satoh.**

- 8903 Acute (Cystic) Hyperoxia Enhances Spontaneous Metastasis of KHT Murine Tumors. Rob A. Cairns, Tuula Kalliomaki, and Richard P. Hill.**

- 8909 The Chimeric Protein Tyrosine Kinase ET6V-NTRK3 Requires both Ras-Erk2 and PI3-Kinase-Akt Signaling for Fibroblast Transformation. Cristina Tegoni, Matthew Garnett, Elizabeth Kewnard, R. Kay, Kevin Morrison, and Paul H. B. Sorenson.**

- 8917 Elevated Levels of Connective Tissue Growth Factor, WISP-1, and CYR61 in Primary Breast Cancers Associated with More Advanced Features. Dong Xie, Kei Nakachi, Heming Wang, Robert Elashoff, and H. Philip Koefoed.**

- 8924 Carbonic Anhydrase 9 as an Endogenous Marker for Hypoxic Cells in Cervical Cancer. Peggy L. Olive, Christina Aquino-Perez, Susan H. MacPhail, Shu-Yuan Lian, James A. Raleigh, Michael L. Lerman, and Eric J. Stanbridge.**

In Memoriam

- 8930 Sidney Weinhouse. Gerald Litwack, Renato Baserga, and Margaret Foti.**

- 8930 Pietro M. Gullino. Rakesh K. Jain.**

- 8931 Thomas S. Argiris. Leonard Augenstein.**

Announcements

- Future Annual Meetings of the American Association for Cancer Research
AACR Special Conferences in Cancer Research
Calendar of Events

Acknowledgment to Reviewers

Author Index

2001 Author Index

2001 Subject Index

2001 Volume Contents

2001 Cover Illustrations